XL-M306BK
XL-M307TN

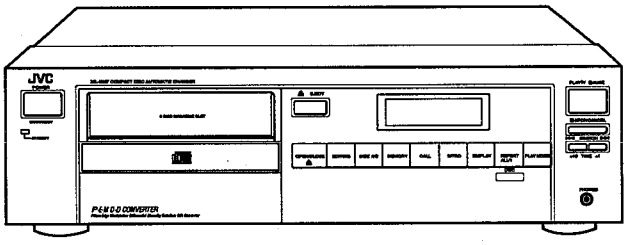
JVC

SERVICE MANUAL

COMPACT DISC CHANGER

XL-M306BK
XL-M307TN

XL-M307TN/XL-M306BK



COMPU LINK
Component

COMPACT disc
DIGITAL AUDIO

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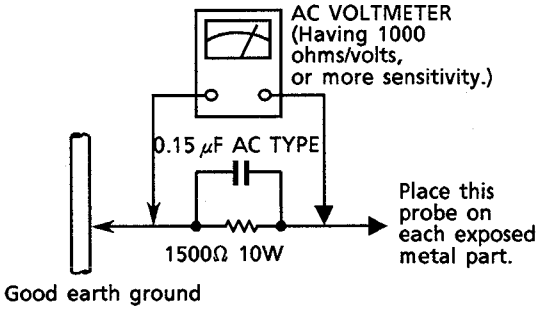
No.20322
Feb.1992

Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute repalcement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, contorl shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularily any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10 W resistor paralleled by a 0.15 μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor.
     Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.).
     This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

Important for Laser Products

1. CLASS 1 LASER PRODUCT
2. DANGER : Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. CAUTION : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.
4. CAUTION : The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.
5. CAUTION : If safety switches malfunction, the laser is able to function.
6. CAUTION : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
7. CAUTION : The compact disc player provides a laser diode of wavelength 780-790nm and optical output power typical 3mW at the laser diode.

VARNING : Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

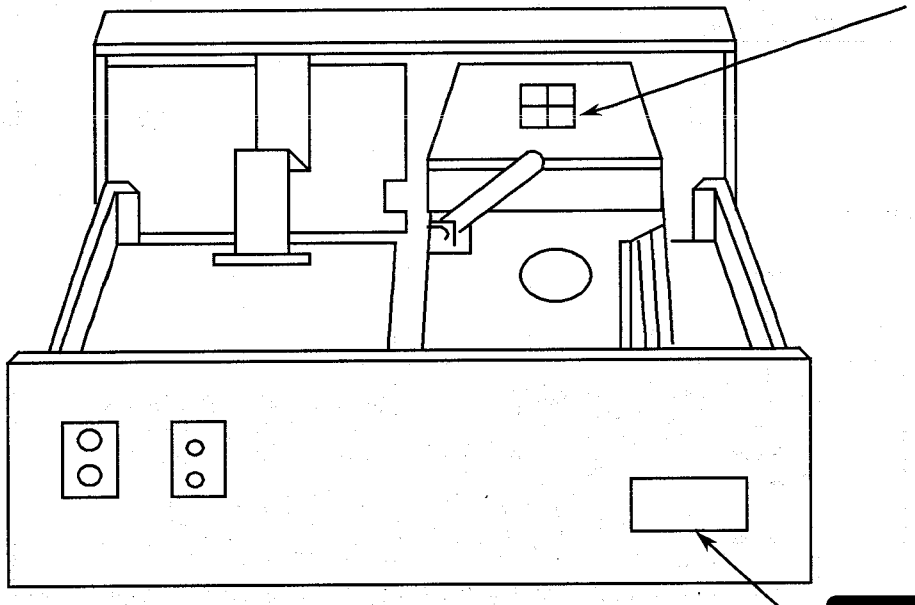
ADVARSEL : Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

ADVARSEL : Usynlig laserstråling ved åpning, når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS

WARNING LABEL
(Except for the U. S. A.)

DANGER: invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)	VARNING: Osynling laserstråling när denna del å öppnad och spärren är urkoppled. Betrakta ej stålen. (s)
ADVARSEL: Usynling laserstråling ved åbning, når sikkerhedsafbrydere er ude at funktion. Undgåudsættelse for stråling. (d)	VARO: Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)

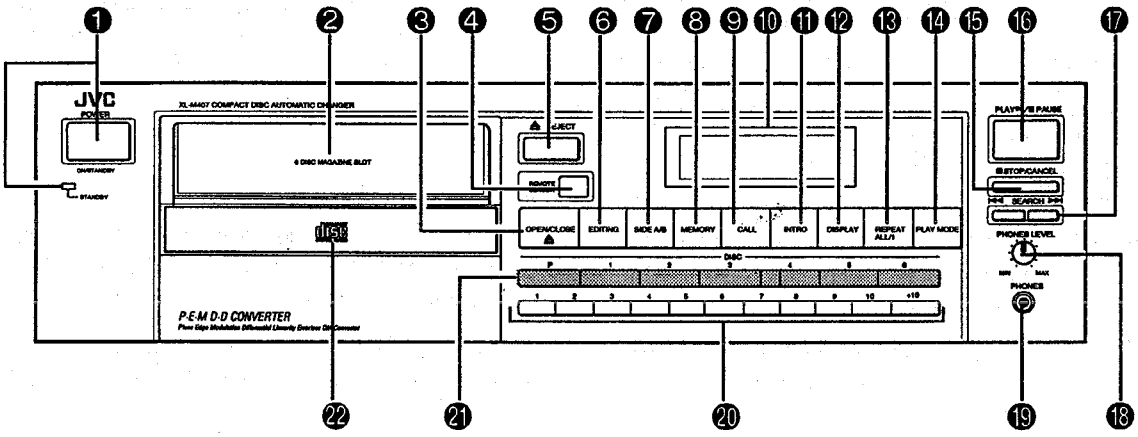


CLASSIFICATION LABEL
(Except for the U. S. A. and Canada)

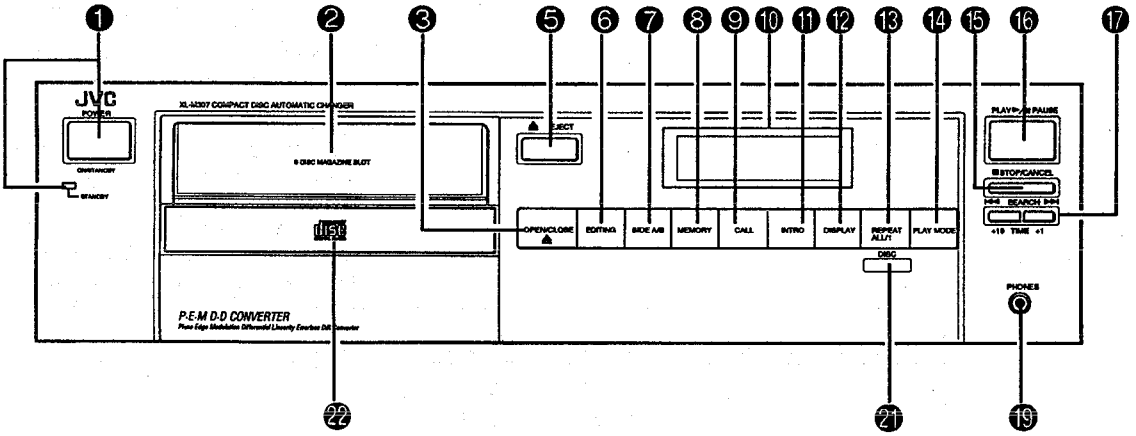
NAMES AND FUNCTIONS

FRONT PANEL

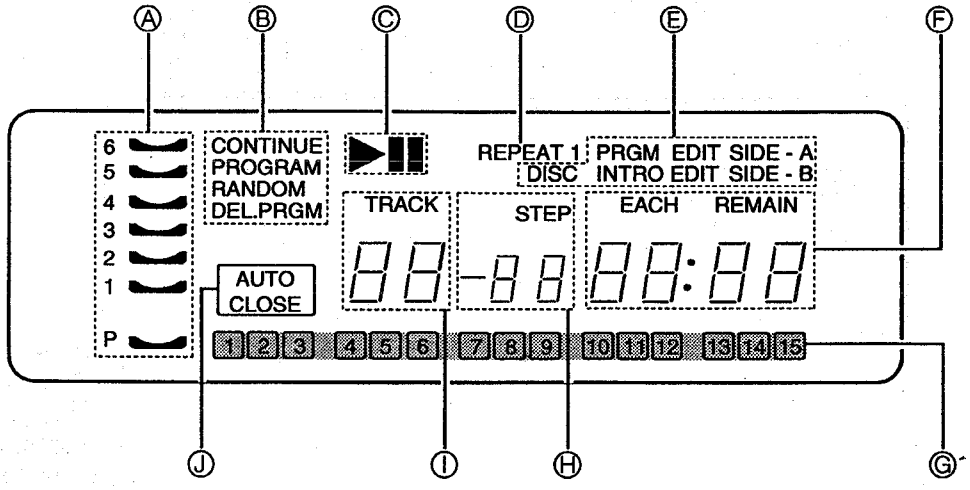
XL-M407TN/XL-M406BK



XL-M307TN/M306BK



MULTI-MODE DISPLAY



We would like to thank you for purchasing one of our JVC products.
Before connecting this unit to the wall outlet, please read the instructions carefully to ensure that you obtain the best possible performance.
If you have any question, please consult your JVC dealer.

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PRECAUTIONS

Installation
- Select a location which is level, dry and neither too cold nor too hot (temperature range 5°C (41°F) to 35°C (95°F).
- Avoid dusty locations or any location subject to vibration.

Power
- When unplugging from the wall socket, always pull the plug body, never the power cable.

Preventing malfunctions
- Never insert anything other than a compact disc into any part of the player.
- Placing anything other than a compact disc on the disc tray may cause the player to malfunction.
- If something goes wrong, turn the power off immediately. If the same problem reoccurs when the power is turned on once more, turn the power off again and consult your JVC dealer.

Volume settings
A CD player has almost zero background noise. The technique of listening to the background level and then setting volume before the music starts, as used with analog turn tables or tape decks, cannot be used. If you raise the volume level too high, speaker damage may result.

Condensation
The CD player uses optical components. If it is moved from a cold location to a warm one, or is used in a room subject to excessive humidity or where a fire has just been lit, condensation could form on the optical components.
This may prevent the laser beam from being properly received and thus cause noise or even a malfunction.
If condensation has formed and the CD player does not function correctly, we recommend that you leave it turned on for an hour or two. If at the end of this time the CD player still does not function properly, please consult your JVC dealer.
Notes
- *When this equipment is placed near either a tuner or a radio receiver tuned to AM frequencies, interference may occur. If this has happened, we recommend either that you move this unit as far away as possible from the tuner or receiver or briefly turn off the power to this unit.*
- *When carrying this unit, it is best to avoid either tilting it or turning it upside-down. Where you cannot avoid doing so, please remove the magazine first.*

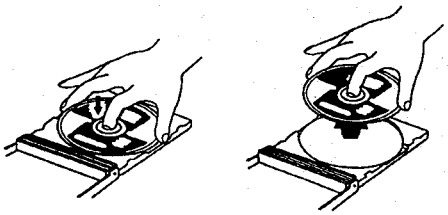
Using compact discs
Compact discs are made of plastic and can be easily damaged. If the disc is dirty, scratched, warped or otherwise damaged, the digital information may not be picked up correctly.

COMPACT disc DIGITAL AUDIO
Only use compact discs bearing this mark.

(No.20322)1-5

CARE OF DISCS

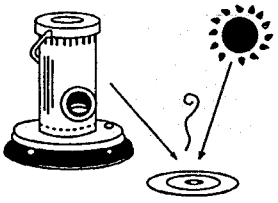
How to handle CDs



When handling compact discs, do not touch the surface of the disc (reflective silver side - the side without the label).

Since compact discs are made of plastic, they are easily damaged. If the disc gets dirty, dusty, scratched or warped, the sound will not be picked up correctly and, in addition, such discs may cause the CD player to malfunction.

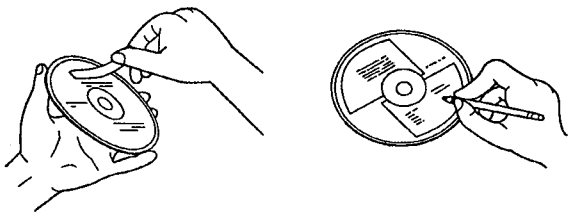
Storage



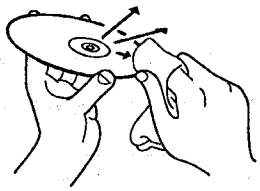
Make sure that discs are kept in their cases. If discs are piled one on top of another without their protective cases, they can be damaged. Do not put discs in any location where they can be exposed to direct sunlight - or in any place where humidity or temperature is high. Avoid leaving discs in your car!

Maintenance of discs

- Do not damage the label side, stick paper to or use any adhesive on this surface.



- When there are fingerprints or other dirt adhering to a disc, wipe the disc with a soft, dry cloth with a movement going from the inside outwards.
- If difficult to clean, wipe the disc with a cloth moistened with water.
- Never use record cleaners, petrol, alcohol or any anti-static agents.



Recommendations for handling the magazine

- Always keep the magazine loaded with its six disc trays.
- When removing or inserting disc trays, the magazine should be held horizontal.
- Never load a disc directly into the magazine without a disc tray.
- Do not expose it to high temperatures or to direct sunlight.
- Do not dismantle the magazine.
- Take care not to drop or hit the magazine. Do not apply any pressure to the disc trays, particularly when removed from the magazine.
- Never apply solvents such as petrol, thinner or insecticide to the surfaces of the magazine or the disc trays. Such solvents may damage their surfaces.
- If you wish to use 8 cm (3") CD's please obtain the special magazine (XC-M73) designed for these.

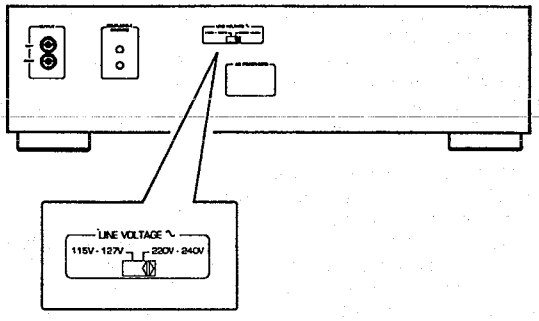
BEFORE USING FOR THE FIRST TIME

CHECKING YOUR MAINS VOLTAGE
(Except for the U.S.A., Australia and U.K.)

Before you insert the power plug into the wall socket, please check the line voltage (mains voltage) setting to ensure that it corresponds with the mains voltage in your area. If it is not correctly set, please adjust the voltage selector switch to the proper setting before you start operating this equipment. The voltage selector switch is located on the rear panel.

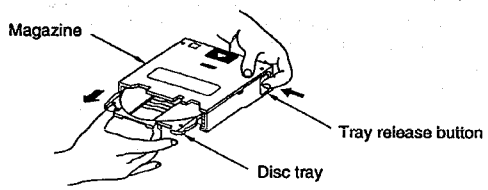
CAUTION

- Before adjusting the voltage selector switch please remove the power plug from the power socket.

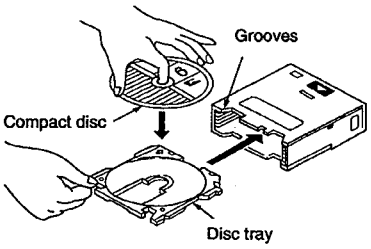


Installing discs in the 6-disc magazine

1. Slide the disc tray out while pressing the tray release button.



2. Place a disc on the disc tray with its label side up.

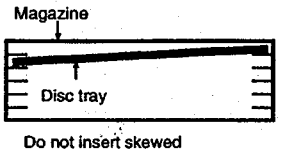


3. Line up the disc tray with the grooves in the magazine and push the disc tray in.
It is unnecessary to press the tray lock button when inserting the disc tray.

- If you wish to use 8 cm (3") CDs, please obtain the special magazine (XC-M73) designed for these.
- If you wish to use a magazine additionaly to the supplied magazine, please obtain the special magazine (XC-M75) designed for 12 cm (5") CDs.

Notes:

- Never bend the disc tray or force it into the magazine.
  A disc tray which is inserted skewed may cause a malfunction.



- The openings in the disc trays are for passage of the laser signal. These openings leave part of the shiny surface of the disc exposed. Please take care not to touch this shiny surface.
- It is not possible to play a disc if it is inserted upside-down.
- Never place a disc directly in the magazine without using the disc tray.

Installing batteries in the remote control unit

The remote control unit provided with the player requires two size AAA (1.5 V) batteries.

Battery replacement

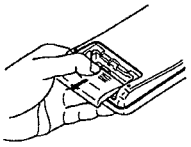
Service life of batteries depends on the condition of use; standard life isabout one year. When the batteries become weak, the operating distance of the remote control unit will be reduced. If this happens, replace the batteries with new ones.

Note:

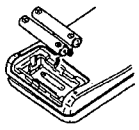
- The lower the temperature, the shorter the battery life.

How to install batteries

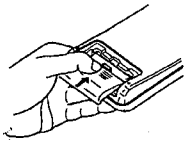
1. Remove the rear cover of the remote control unit by pressing down and simultaneously pulling it backwards.



2. Install batteries (R03, AAA, 24F). Be sure batteries are installed with correct polarity, (+) and (–).



3. Slide the rear cover back into position.



Notes:
Incorrect use of batteries can cause corrosion or damage. Note the following points to lengthen battery life.

- Install batteries observing the correct polarity, (+) and (–).
- Do not use new and old batteries simultaneously.
- Batteries with similar shapes may have different voltage ratings. Be sure to use the correct batteries.
- Remove batteries from the remote control unit if it will not be used for a long period of time.

COMPU LINK REMOTE CONTROL SYSTEM

COMPU LINK
Remote
Control System

The Compu Link Remote Control system controls relative operations between components automatically and facilitates various operations.

This is a system of convenience, originated and developed by JVC. There are two versions in this system; version 1 and 3. (For the component of version 1, "COMPU LINK-1 SYNCHRO" is marked on the rear panel. For the component of version 3, "COMPU LINK-3 SYNCHRO" is marked on the rear panel. This unit belongs to version 3.) The system of version 3 controls relative functions between this unit and an amplifier or receiver, in addition to all functions of version 1.
The following is a brief explanation of this system:

Automatic source selection

When the remote cable provided is utilized to connect this unit to others which have COMPU LINKterminals incorporated, switching-in of each system component can be done by a single touch on the source selector button located on a JVC amplifier or receiver.
When selection is carried out in this manner, the corresponding unit will automatically start operation.
Upon pressing the play button, the source selector for either an amplifier or a receiver changes automatically. When the new unit is switched-in, the previously selected component stops within five seconds.

Synchronized recording

Synchronized recording refers to the process in which the cassette deck starts recording, synchronized with this unit. Synchronized recording is carried out as follows:

1. Set the cassette deck to the REC/PAUSE mode in accordance with its instructions.
2. When recording only the desired tracks, program the tracks in any order, as desired.
3. Press the PLAY ►/II PAUSE button of this unit. The cassette deck is now set in recording mode and is automatically synchronized with this unit for recording. Synchronized recording can now take place.

Notes

- *Synchronized recording stops automatically when this unit stops playback.*
- *To cancel synchronized recording, press the stop button of this unit or the cassette deck.*
- *When the REC/PAUSE mode has been set by pressing the PAUSE II button after having pressed the REC ● and PLAY ► buttons simultaneously, synchronized recording is not possible. For details, refer to the instructions for the cassette deck.*

Automatic power on/off function

This function can be carried out when this unit is connected to an amplifier or receiver of version 3.
Relative functions of the amplifier or receiver when operating this unit:
When the magazine is inserted or this unit enters playback mode, the power of the amplifier or receiver is automatically turned on.
Relative functions of this unit when operating the amplifier or receiver:
The power of this unit is automatically turned on by turning on the power of the amplifier or receiver.

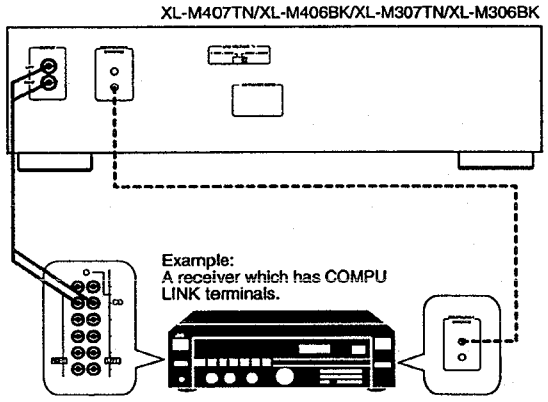
CAUTION

- *Abnormal operation will result if the power supply of the component(s) is interrupted. If this happens, you must start all over again.*
- *Ensure that the COMPU LINK terminals of the individual components are connected with the provided remote cables. Also be sure to fully read the instructions for each component.*

CONNECTIONS

- Do not connect the power plug until all connections are completed.
- Connect the plugs firmly.
- This diagram is given as an example.

■ Connecting to the OUTPUT jacks



Connect the OUTPUT jacks of this unit to the CD jacks or AUX jacks of an amplifier or receiver with the audio cable.

Notes

- *Never connect the OUTPUT jacks to the PHONO jacks of the amplifier or receiver. This may cause damage to the components.*
- *When connecting COMPU LINK terminals of this unit and the amplifier, use the remote cable. The components have two terminals and either of them can be connected.*

■ AC power connection

The AC power cord is supplied separately and must be connected to the unit before use.

Plug the power cord on the back of the unit into an AC household electrical outlet.

Note

When using the Compu Link Remote Control System of version 3, do not connect the power cord to the SWITCHED AC OUTLET of an amplifier or receiver. Otherwise, the automatic power on/off function cannot be carried out.

NAMES AND FUNCTIONS

FRONT PANEL

❶ POWER (ON/STANDBY) switch and STANDBY indicator

Press this switch to turn the power on. Press again to turn the power off and activate the standby mode.

A small amount of power (3 watts) is consumed and the STANDBY indicator is lit in the standby mode. To turn the power off completely, disconnect the power cord from the wall outlet.

❷ 6 DISC MAGAZINE SLOT

Insert the magazine into this slot and push the magazine in until it clicks into place.

❸ OPEN/CLOSE ▲ button

Press to open or close the single disc tray. When this button is pressed during playback of a single disc, playback stops and the tray comes out. However, pressing this button does not affect the playback of a disc in the magazine.

❹ REMOTE SENSOR (XL-M407TN/XL-M406BK only)

Receives the signal from the supplied remote control unit.

❺ EJECT ▲ button

Press to eject the magazine. When this button is pressed during playback of a disc in the magazine, playback stops and the magazine ejects. However, pressing this button does not affect the playback of a disc in the single disc tray. The magazine can be ejected with this button even when the unit is in the standby mode.

❻ EDITING button

Each time this button is pressed, the edit mode changes between intro edit mode and program edit mode. In edit mode, you can program the desired tracks within the specified recording time of a cassette tape by observing the amount of recording time remaining as each track is programmed.

INTRO EDIT: Tracks can be programmed while listening to the beginning of the tracks.

PRGM EDIT: Tracks can be programmed by specifying the track number.

❼ SIDE A/B button

In edit mode, this button is used to select side A or B of the tape.

❽ MEMORY button

This button is used to memorize the disc number and/or track number.

❾ CALL button

Each time this button is pressed, the program contents are displayed in the programmed order.

❿ Multi-mode display window

This shows both programmed track data and disc status information. For further details, please refer to "MULTI-MODE DISPLAY" on the next page.

⓫ INTRO button

Each time this button is pressed, the intro scan play mode changes in the following order: DISC INTRO → Track INTRO → intro off → DISC INTRO.
DISC INTRO: The beginning of the first track on each disc is played for about 15 seconds.
Track INTRO: The beginning of each track on each disc is played for about 15 seconds.

⓬ DISPLAY button

Each time this button is pressed, the display changes in the following order: Elapsed time → Remaining time → Total playing time → Elapsed time.

⓭ REPEAT ALL/1 button

Each time this button is pressed, the repeat play mode changes in the following order: All disc repeat mode → Single track repeat mode → Repeat off → All disc repeat mode.

⓮ PLAY MODE button

XL-M407TN/XL-M406BK
Each time this button is pressed, the playback mode changes in the following order: CONTINUE → PROGRAM → RANDOM → DEL. PRGM (Delete program) → CONTINUE.
XL-M307TN/XL-M306BK
Each time this button is pressed, the playback mode changes in the following order: CONTINUE → PROGRAM → RANDOM → CONTINUE.

⓯ STOP/CANCEL ■ button

Press to stop play. This button is also used to cancel the programmed track.

⓰ PLAY ►/II PAUSE button

Press to start playback. To stop playback temporarily, press this button again. To resume playback, press this button once again.

⓱ SEARCH ⏮ and ⏭ buttons

Playback skips to the beginning of the current track or previous track with the ⏮ button. With the ⏭ button, playback skips to the next track.
These buttons are also used to rapidly reverse playback toward the beginning of the track or advance it toward the end of the track. Since the button function changes depending on how long the button is pressed, refer to "Continuous playback" on page 13.
XL-M307TN/XL-M306BK only: In program mode or delete program mode, these buttons are used to select the track number. In edit mode, they are used to specify the recording time.

⓲ PHONES LEVEL control (XL-M407TN/XL-M406BK only)

Turning this control counterclockwise decreases the volume level of the PHONES jack while turning the control clockwise increases it.

⓳ PHONES jack

Insert the headphones plug into this jack for private listening.

⓴ Numeric buttons (XL-M407TN/XL-M406BK only)

These buttons are used to select the track number or specify the recording time.

㉑ DISC buttons (XL-M407TN/XL-M406BK)

P: Press to specify the disc loaded in the single disc tray.
1-6: Press to select a disc loaded in the 6-disc magazine.

DISC button (XL-M307TN/XL-M306BK)
Each time this button is pressed, the discs in the player are selected in the following order: disc in the single disc tray → disc number 1 → disc number 2 → disc number 3 → disc number 4 → disc number 5 → disc number 6 → disc in the single disc tray.

㉒ Single disc tray

Load a disc to be played. To open and close the tray, press the OPEN/CLOSE ⏏ button.
Auto close function
If the unit changes the disc in the magazine when the single disc tray is left opened, the unit automatically closes the tray. The AUTO CLOSE indicator blinks for about 2 seconds before the unit closes the tray.

MULTI-MODE DISPLAY

Ⓐ DISC indicators

P, 1 - 6: With the magazine, the selected disc number indicator (1 - 6) lights. "P" lights when the disc loaded in the single disc tray is selected.
▬: Lights when a disc is loaded on the tray. When a disc is not loaded on the tray, the corresponding indicator goes out.

Ⓑ Play mode indicators

CONTINUE: Lights in continuous play mode.
PROGRAM: Lights in program mode.
RANDOM: Lights in random play mode.
DEL. PRGM: Lights in delete program mode. (XL-M407TN/XL-M406BK only)

Ⓒ Play/Pause indicators

►: Lights during playback.
II : Lights in pause mode.

Ⓓ Repeat mode indicators

REPEAT: Lights in all-disc repeat mode.
REPEAT 1: Lights in single track repeat mode.

Ⓔ Edit mode/Intro mode indicators

PRGM EDIT: Lights in program edit mode.
INTRO EDIT: Lights in intro edit mode.
SIDE A: Lights when side A of a cassette tape is selected in edit mode.
SIDE B: Lights when side B of a cassette tape is selected in edit mode.
DISC INTRO: Lights in disc intro playback mode.
INTRO: Lights in track intro playback mode.

Ⓕ Time display

EACH: Shows the elapsed time of the track being played.
EACH REMAIN: Shows the remaining playback time of the track being played.
Total time: Shows the total playing time of the disc being played.

Ⓖ Track calendar

When a disc is selected, indicators for the track numbers which exist on the disc light. When a track finishes playing, the corresponding track number indicator goes off. In program mode or edit mode, the selected track number indicator lights. In delete program mode, the selected track number indicator goes out.

Ⓗ Program step display

Shows the program step in program mode or edit mode.

Ⓘ TRACK number indicator

The selected track number is displayed.

Ⓙ AUTO CLOSE indicator

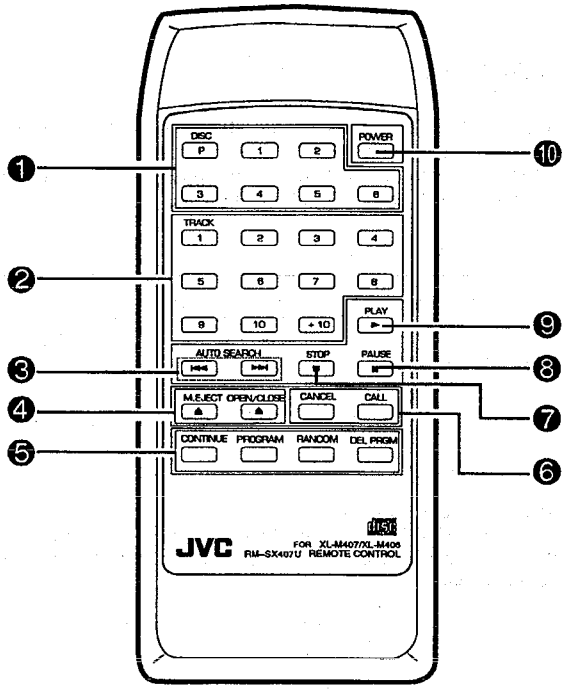
When the auto close function is activated, this indicator blinks for about 2 seconds and then the single disc tray closes automatically.

NAMES AND FUNCTIONS

REMOTE CONTROL UNIT (XL-M407TN/XL-M406BK only)

How to operate

Point the remote control unit towards the REMOTE SENSOR on the front panel of the player and operate it steadily and carefully. The remote control unit can be used within a range of about 7 meters (23 feet) from the REMOTE SENSOR, and at angles of up to about 30 degrees.



❶ DISC buttons
These buttons have the same functions as the buttons on the front panel.

❷ TRACK number buttons
Used to select the desired track number or specify the recording time.

❸ AUTO SEARCH ⏮ and ⏭ buttons
These buttons have the same functions as the buttons on the front panel.

❹ M. EJECT and OPEN/CLOSE buttons
M. EJECT: Press to eject the magazine.
OPEN/CLOSE: Press to open or close the single disc tray.

❺ Play mode buttons
CONTINUE: Press to enter continuous play mode.
PROGRAM: Press to enter program mode.
RANDOM: Press to enter random play mode.
DEL. PRGM: Press to enter delete program mode.

❻ CANCEL and CALL buttons
CANCEL: Press to erase the displayed programmed track.
CALL: Each time this button is pressed, the program contents are displayed in the programmed order.

❼ STOP ■ button
Press to stop play.

❽ PAUSE ⏸ button
Press to stop play temporarily. To resume playback, press the PLAY ► button.

❾ PLAY ► button
Press to start playback.

❿ POWER button
Press this switch to turn the power on. Press again to turn the power off and activate the standby mode.
A small amount of power (3 watts) is consumed and the STANDBY indicator is lit in the standby mode. To turn the power off completely, disconnect the power cord from the wall outlet.

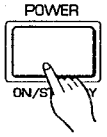
HOW TO OPERATE

Preliminary operation

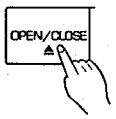
Up to seven discs can be played by using both the single disc tray and the magazine.

1. **Turn on the power of your system components.**
   Switch on and carry out any necessary adjustments to system components, such as the amplifier.

2. **Press the POWER switch to turn on this unit.**
   When the magazine is inserted, the power is automatically turned on without pressing the POWER switch.



3. **Load the desired discs.**
   Insert a magazine, with discs installed, into the 6-DISC MAGAZINE SLOT and push it gently until it clicks into place. Refer to "Installing discs in the 6-disc magazine".
   In addition, you can load a disc in the single disc tray. Press the OPEN/CLOSE ⏏ button to open the disc tray, place a disc on the disc tray with its label side up and press the OPEN/CLOSE ⏏ button to close the disc tray.



Note

- *Damage could be caused if you push the magazine with too much power when inserting.*

4. **Select the playback mode with the PLAY MODE button.**
   The corresponding play mode indicator lights on the display.

Continuous playback

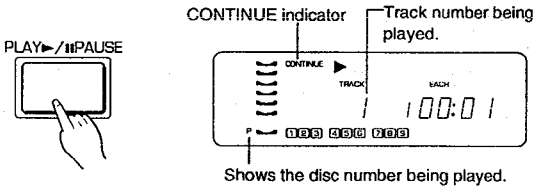
In continuous playback mode, you can continuously play from any track on any disc through the final track on disc number 6.

To play from the first track

When discs are inserted into both the single disc tray and the 6-disc magazine, the unit starts playback from the disc in the single disc tray.

1. **Press the PLAY MODE button so that the CONTINUE indicator lights on the display.**

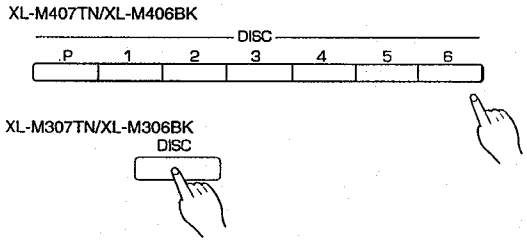
2. **Press the PLAY ►/II PAUSE button to start playback.**



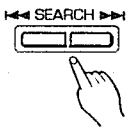
- If the single disc tray is not closed, pressing the PLAY ►/II PAUSE button closes the disc tray and then starts playback.
- When the DISPLAY button is pressed the display changes to the remaining play time, to the total playback time of the disc, and back around to the elapsed time display.

To play from any desired track

1. **Use the DISC button(s) to select the disc number which contains the track to be played.**
   When you want to play from the first track on the selected disc, it is not necessary to select the track number.



2. **Select the track number.**
   Press the SEARCH ⏮ or ⏭ button so that the desired track number appears on the display. Playback starts from the selected track automatically.



Direct playback (XL-M407TN/XL-M406BK only)

In step 2 above, you can select the desired track with the numeric buttons. The unit searches for the selected track and playback starts automatically.
When selecting track number 10 or less, press the corresponding numeric button. When selecting track number 11 or above, use the [+10] button.
Example: To select track number 12, press [+10] and then [2].
To select track number 25, press [+10] twice and then [5].
To select track number 30, press [+10] twice and then [10].

Notes

- *If the selected track number does not exist on the selected disc, playback starts from the final track on that disc.*
- *If the selected disc is not loaded in the magazine, the indicator of that disc (▬) goes out within about 4 seconds and then playback starts from the next disc.*

To skip to a desired track during playback
To skip back to the beginning of the track being played, tap the ⏮ button. When the beginning of the track is reached, tapping this button again skips to the previous track.
To skip to the next track, tap the ⏭ button.

To search for a desired section during playback
When the ⏮ or ⏭ button is pressed for more than 4 seconds, playback advances or reverses rapidly.
While the ⏮ button is kept pressed, play rapidly reverses toward the beginning of the track. While the ⏭ button is kept pressed, play rapidly advances toward the end of the track. When the desired section is reached, release the button. The player resumes normal playback from that point.

To stop play temporarily
Press the PLAY ▶/II PAUSE button. To resume playback, press the PLAY ▶/II PAUSE button again.

To stop play
Press the STOP/CANCEL ■ button.

To remove the disc from the single disc tray
Press the OPEN/CLOSE ⏏ button and remove the disc. Press the OPEN/CLOSE ⏏ button to close the disc tray.
Auto close function
If the unit changes the disc in the magazine when the single disc tray is left opened, the unit automatically closes the tray. The AUTO CLOSE indicator blinks for about 2 seconds before the unit closes the tray.

To eject the magazine
Press the EJECT ⏏ button and remove the magazine.

Intro scan

You can use 2 types of intro scan functions (Disc intro scan and Track intro scan to search for a desired disc or track. Each time the INTRO button is pressed, the intro scan mode changes in the following order; Disc intro scan (DISC INTRO) → Track intro scan (INTRO) → Intro scan off → Disc intro scan.
Make sure that the CONTINUE indicator is lit on the display. Otherwise, intro scan playback cannot be carried out.

Disc intro scan
In stop mode, press the INTRO button so that the DISC INTRO indicator lights on the display. The beginning of the first track on each disc is played for about 15 seconds starting with the disc in single disc tray and continuing through to the 6th disc in the magazine. When the desired disc is reached, press the ⏮ button. The disc intro scan mode is canceled and normal playback continues.

Track intro scan
In stop mode, press the INTRO button so that the INTRO indicator lights on the display. The beginning of each track on each disc is played for about 15 seconds starting with the disc in single disc tray and continuing through to the 6th disc in the magazine. When the desired track is reached, press the ⏮ button. The track intro scan mode is canceled and normal playback continues.

The following operations also cancel the intro scan mode.
- When the playback mode is changed with the PLAY MODE button.
- When the ⏭ button, DISC button or numeric button is pressed.

Repeat playback

To repeat all discs

Press the REPEAT ALL/1 button so that the REPEAT indicator lights on the display. All discs loaded in the player are played repeatedly.

To repeat one track

Press the REPEAT ALL/1 button so that the REPEAT 1 indicator lights on the display. The displayed track number is played repeatedly.

To cancel repeat mode
Press the REPEAT ALL/1 button so that the REPEAT and REPEAT 1 indicators go out.

Random playback

In random mode, the unit selects and plays tracks at random from among all discs loaded in the unit.
- Selections are made so that each track is played only once.

1. Press the PLAY MODE button so that the RANDOM indicator lights on the display.
2. Press the PLAY ▶/II PAUSE button to start playback.
- To skip to the track to be next played, press the ⏭ button.
- To repeatedly play all tracks in random order, press REPEAT ALL/1 button so that the REPEAT indicator lights on the display.

To cancel random playback
Select other playback mode (CONTINUE, PROGRAM or DEL. PRGM) with the PLAY MODE button. The RANDOM indicator goes out and the unit enters the selected play mode.

Program playback

You can program up to 32 steps in any desired order from among the discs in the magazine and single disc tray.

Note

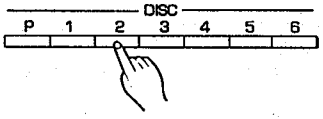
The programming procedure differs between the XL-M407TN/XL-M406BK and the XL-M307TN/XL-M306BK. Be sure to read the explanation which corresponds to your unit.

Example: To program track number 9 on disc number 2 and track number 3 on disc number 4 in this order.

1. **In stop mode, press the PLAY MODE button so that the PROGRAM indicator lights on the display.**

2. **Use the DISC button to select the disc which contains the track to be programmed.**
"AL" (all tracks) appears on the display.

XL-M407TN/XL-M406BK



XL-M307TN/XL-M306BK

Press the DISC button so that disc number 2 appears on the display.

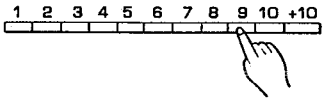
To program the entire disc

XL-M407TN/XL-M406BK: When the track number is not specified after selecting the disc number, all tracks on the displayed disc are programmed.

XL-M307TN/XL-M306BK: After selecting the disc number, press the MEMORY button within 20 seconds. All tracks on the displayed disc are programmed.

3. **Select the track number.**

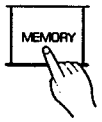
XL-M407TN/XL-M406BK



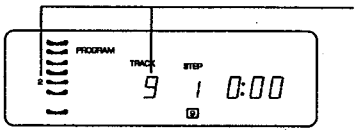
To select track number 11 or above, use the [+10] button. Refer to "To play from any desired track" on page 13.

XL-M307TN/XL-M306BK

Press the ⏮ or ⏭ button so that the desired track number appears on the display.



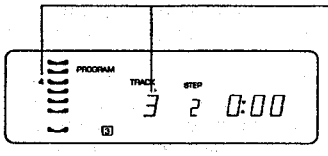
Be sure to press the MEMORY button after selecting the track number.



Display shows the disc number and track number selected for step 1.

- If you want to cancel the displayed program step, press the STOP/CANCEL ■ button and then enter the new disc number and/or track number.

4. **Select the disc number and track number to be programmed for step 2.**
In this example, enter disc number 4 with the DISC button and then track number 3 with the numeric buttons (XL-M407TN/XL-M406BK) or the ⏭ or ⏮ button (XL-M307TN/XL-M306BK). For the XL-M307TN/XL-M306BK, be sure to press the MEMORY button after selecting the track number.



Display shows the disc number and track number selected for step 2.

5. **If necessary, repeat steps 2 and 3 for other tracks and/or discs to be programmed.**

6. **Start program playback with the PLAY ▶/⏸ PAUSE button.**
The programmed tracks and/or discs are played in the programmed order.

- You can skip to a desired program step with the SEARCH ⏮ or ⏭ button.
- To repeatedly play the programmed tracks and/or discs, press the REPEAT ALL/1 button so that the REPEAT indicator lights on the display.

To check the program contents

Each time the CALL button is pressed, the program contents are displayed in the programmed order.

- When the unit is in program play mode, press the STOP/CANCEL ■ button to enter stop mode and then operate the CALL button.

To modify the program contents

Press the CALL button until the display shows the program step to be corrected. Enter the new disc number and/or track number referring to step 2 and 3 above.

To delete a program step, press the CALL button until the display shows the program step to be deleted and then press the STOP/CANCEL ■ button. You can also delete a displayed program step during programming.

- When the unit is in program play mode, press the STOP/CANCEL ■ button to enter stop mode and then delete the program step.

To exit program mode

Select another playback mode with the PLAY MODE button. The unit enters the selected playback mode. However, the program contents are not erased and whenever the program mode is selected with the PLAY MODE button, you can play the tracks in the programmed order

To clear the entire program

Ejected the magazine or open the single disc tray. The program contents will be cleared, however, the program mode is not canceled.

Delete program playback

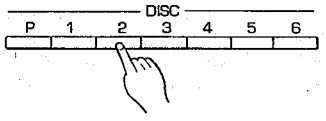
(XL-M407TN/XL-M406BK only)

You can program undesired tracks and or discs from among the discs in the 6-disc magazine and single disc tray. With this function, only the remaining tracks and/or discs are played. Up to 32 steps can be programmed.

Example: To delete track number 9 on disc number 2 and track number 3 on disc number 4.

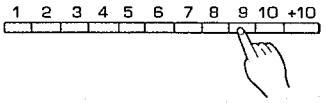
1. **In stop mode, press the PLAY MODE button so that the DEL.PRGM indicator lights on the display.**

2. **Use the DISC button to select the disc number which contains the track to be deleted.**
"AL" (all tracks) appears on the display.

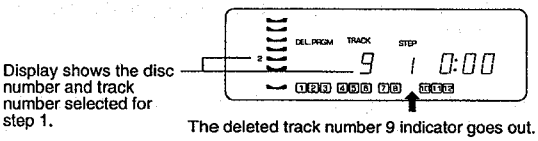


To delete the entire disc
When the track number is not specified after selecting the disc number, all tracks on the displayed disc are deleted.

3. **Select the track number.**



To select track number 11 or above, use the [+10] button. Refer to "To play from any desired track" on page 13.



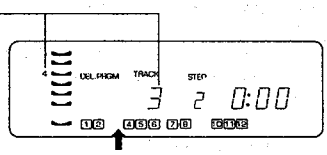
Display shows the disc number and track number selected for step 1.

The deleted track number 9 indicator goes out.

- If you want to cancel the displayed program step, press the STOP/CANCEL ■ button and then enter the new disc number and/or track number.

4. **Select the disc number and track number to be deleted for step 2.**
In this example, enter disc number 4 with the DISC button and then track number 3 with the numeric buttons.

Display shows the disc number and track number selected for step 2.



The deleted track number 3 indicator goes out.

5. **If necessary, repeat steps 2 and 3 for other tracks and/or discs to be deleted.**

6. **Start delete program playback with the PLAY ►/II PAUSE button.**
All tracks other than deleted tracks and/or discs are played in the order of the disc and track numbers.
- You can skip to a desired track other than deleted tracks with the ⏮ or ⏭ button.
- To repeatedly play the tracks and/or discs other than deleted tracks and/or discs, press the REPEAT ALL/1 button so that the REPEAT indicator lights on the display.

To check the delete program contents

Each time the CALL button is pressed, the delete program contents are displayed in the programmed order.
- When the unit is in delete program playback mode, press the STOP/CANCEL ■ button to enter stop mode and then operate the CALL button.

To modify the delete program contents

Press the CALL button until the display shows the program step to be corrected. Enter the new disc number and/or track number referring to step 2 and 3 above.
To erase a program step, press the CALL button until the display shows the program step to be erased and then press the STOP/CANCEL ■ button. You can also erase a displayed program step during programming.
- When the unit is in delete program play mode, press the STOP/CANCEL ■ button to enter stop mode and then delete the program step.

To clear the entire program

Change the playback mode with the PLAY MODE button or eject the magazine or single disc tray. The program contents will be cleared.

Editing tracks for recording

With the edit function, you can program the desired tracks within the specified recording time of a cassette tape by observing the amount of recording time remaining as each track is programmed.
Up to 16 steps can be programmed for each side of a cassette tape.

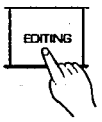
Note

The programming procedure differs between the XL-M407TN/XL-M406BK and the XL-M307TN/XL-M306BK. Be sure to read the explanation which corresponds to your unit.

INTRO EDIT: You can program tracks while listening to the beginning of each track on the selected disc.
PRGM EDIT: You can program tracks from among discs in the unit by specifying the disc number and track number.

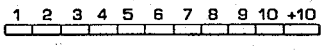
Intro edit

1. In stop mode, press the EDITING button so that the INTRO EDIT indicator lights on the display.



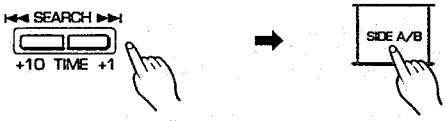
2. Enter the tape playing time (in minutes) of side A of your cassette tape.

XL-M407TN/XL-M406BK



To enter 10 minutes or less, press the corresponding numeric button. To enter 11 minutes or above, use the [+10] button. For example, to enter 46 minutes, press the [+10] button four times and then the [6] button. To enter 60 minutes, press the [+10] button five times and then the [10] button.

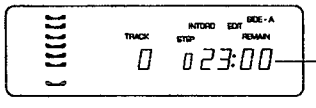
XL-M307TN/XL-M306BK



To enter 9 minutes or less, press the [+1] button sequentially so that the desired playing time appears on the display. To enter 10 minutes or above, use the [+10] button. For example, to enter 46 minutes, press the [+10] button four times and then the [+1] button six times. To enter 60 minutes, press the [+10] button six times.

After the playing time is selected, be sure to press the SIDE A/B button so that the desired side (SIDE-A or SIDE-B) indicator lights on the display.

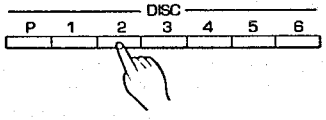
When 46 minutes is entered:



Display shows half the specified playing time.

3. Use the DISC button to select the disc which contains tracks to be programmed.

XL-M407TN/XL-M406BK



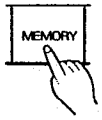
Press the corresponding DISC number button.

XL-M307TN/XL-M306BK

Press the DISC button so that the desired disc number appears on the display.

Intro scan playback starts on the selected disc. The beginning of each track is played for about 15 seconds.

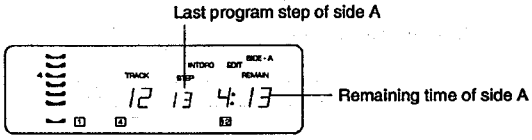
4. Press the MEMORY button when the desired track is reached.



When the MEMORY button is pressed, the track being played is programmed and the unit searches for the next track. Whenever a desired track is reached, you can program it by pressing the MEMORY button. In this way up to 16 steps can be programmed.

- With ▶▶| or |◀◀ button, you can skip to the desired track.

5. When the remaining time is not long enough to program any more tracks, press the STOP/CANCEL ■ button.
Intro scan playback stops and the display shows the last program step.



- Once you program 16 steps, intro scan playback stops and no more tracks can be programmed.

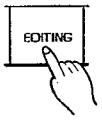
6. To program tracks for side B, press the SIDE A/B button so that the SIDE-B indicator lights on the display and repeat steps 3 through 5.

When total playing time of the programmed tracks has exceeded the specified time:
Intro scan playback stops and the excess time display blinks. In this case, press the STOP/CANCEL ■ button to delete the last programmed step so the tracks fit within the specified time.

HOW TO OPERATE

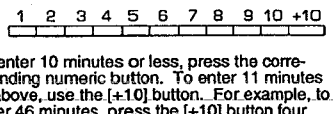
Program edit

1. Press the EDITING button so that the PROGRAM EDIT indicator lights on the display.



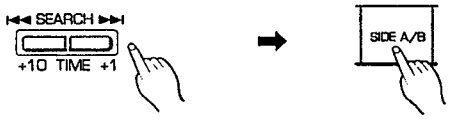
2. Enter the tape playing time (in minutes) of side A of your cassette tape.

XL-M407TN/XL-M406BK



To enter 10 minutes or less, press the corresponding numeric button. To enter 11 minutes or above, use the [+10] button. For example, to enter 46 minutes, press the [+10] button four times and then the [6] button. To enter 60 minutes, press the [+10] button five times and then the [10] button.

XL-M307TN/XL-M306BK



To enter 9 minutes or less, press the [+1] button sequentially so that the desired playing time appears on the display. To enter 10 minutes or above, use the [+10] button. For example, to enter 46 minutes, press the [+10] button four times and then the [+1] button six times. To enter 60 minutes, press the [+10] button six times.

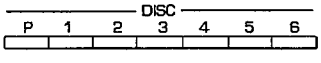
After the playing time is selected, be sure to press the SIDE A/B button so that the desired side (SIDE-A or SIDE-B) indicator lights on the display.

When 46 minutes is entered:

Display shows half the specified playing time.

3. Use the DISC button to select the disc which contains tracks to be programmed.

XL-M407TN/XL-M406BK



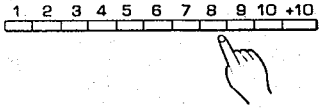
Press the corresponding DISC number button.

XL-M307TN/XL-M306BK

Press the DISC button so that the desired disc number appears on the display.

4. Select the track number to be programmed.

XL-M407TN/XL-M406BK



To select track number 11 or above, use the [+10] button. Refer to "To play from any desired selection" on page 13.

XL-M307TN/XL-M306BK

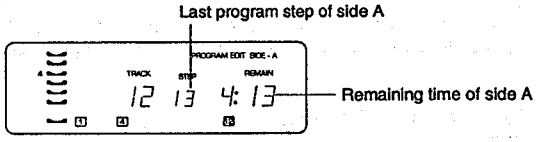
Press the ⏮ or ⏭ button so that the desired track number appears on the display.

Be sure to press the MEMORY button after selecting the track number.

- If you want to cancel the displayed program step, press the STOP/CANCEL ■ button and then enter the new disc number and/or track number.

5. Repeat steps 3 and 4 for other tracks to be programmed.

6. When the remaining time is not long enough to program any more tracks, press the SIDE A/B button so that the SIDE-B indicator lights on the display and repeat steps 3 through 5.



- Once you program 16 steps, no more tracks can be programmed.

When total playing time of the programmed tracks has exceeded the specified time:

The excess time display blinks and no more tracks can be programmed. In this case, press the STOP/CANCEL ■ button to delete the last programmed step so the tracks fit within the specified time.

To record the programmed tracks

1. Set the cassette deck to record-standby mode.
2. Press the PLAY ►/II PAUSE button to start edit program play.
   If this unit and the amplifier are connected with the COMPU LINK terminal, the cassette deck enters record mode automatically. When the program for side A finishes playing, this unit and cassette deck enter pause mode. Set the cassette deck for recording of side B, and press the PLAY ►/II PAUSE button of this unit to start playback of side B. The cassette deck enters record mode automatically.

To check the program contents

Each time the CALL button is pressed, the program contents are displayed in the programmed order.

- When the unit is in playback mode, press the STOP/CANCEL ■ button to enter stop mode and then operate the CALL button.

To modify the program contents

Press the CALL button until the display shows the program step to be corrected. Enter the new track number with the numeric buttons (XL-M407TN/XL-M406BK) or the I◄◄/►►I buttons (XL-M307TN/XL-M306BK). For the XL-M307TN/XL-M306BK, be sure to press the MEMORY button after selecting the track number.
To delete a program step, press the CALL button until the display shows the program step to be deleted and then press the STOP/CANCEL ■ button.

- When the unit is in playback mode, press the STOP/CANCEL ■ button to enter stop mode and then delete the program step.

To clear the entire program

Change the playback mode with the PLAY MODE button or eject the magazine or single disc tray. The program contents will be cleared.

TROUBLESHOOTING

What appears to be a malfunction may not always be serious. Please go through the following list before requesting service.

Symptom	Possible cause	Remedy
The magazine does not eject when the EJECT ▲ button is pressed.	• Then magazine has not been inserted correctly.	• Push the magazine all the way in and tray pressing the EJECT ▲ button again.
When the operating buttons are pressed, nothing happens.	• The operating buttons are pressed while this unit is selecting a disc.	• Press the operating buttons after the disc is selected.
Programming is not possible.	• The appropriate program indicator does not lights.	• Select the PROGRAM or DEL. PRGM mode with the PLAY MODE button.
The sound is intermittent and is harsh to the ear.	• Is the disc dirty? • Is the disc scratched? • Is the disc warped?	• Wipe off the disc surface with a soft cloth. • Replace the disc with a new one. • Replace the disc with a new one.
A track on a CD is not played.	• A CD is missing. • A CD is loaded upside-down.	• Load a CD. • Load the cd with its label-side up on the disc tray or in the magazine.

SPECIFICATIONS

System : Compact disc digital audio system
CD capacity : 7 discs
(one disc in single disc tray and
6 discs in the magazine)
Signal detection system : Non-contact optical detection system
Frequency response : 2 Hz - 20,000 Hz
Dynamic range : More than 98 dB at 1 kHz
Signal to noise ratio : More than 108 dB
Channel separation : More than 94 dB at 1 kHz
Total harmonic distortion : Less than 0.002% at 1 kHz
Wow and flutter : Below the measurable limit
Audio output level : 2.0 Vrms at full scale

Dimensions (W x H x D) : 435 x 128 x 317 mm
17-3/16" x 5- 1/16" x 12-1/8 "
Weight : 5.1 kg
11.3 lbs
Accessories : Magazine 1
Remote control unit (XL-M407TN/
XL-M406 BK only)
(RM-SX407U) 1
Battery (XL-M407TN/XL-M406BK only)
(R03, AAA, 24 F) 2
Remote cable 1
Audio cord 1

POWER SPECIFICATIONS

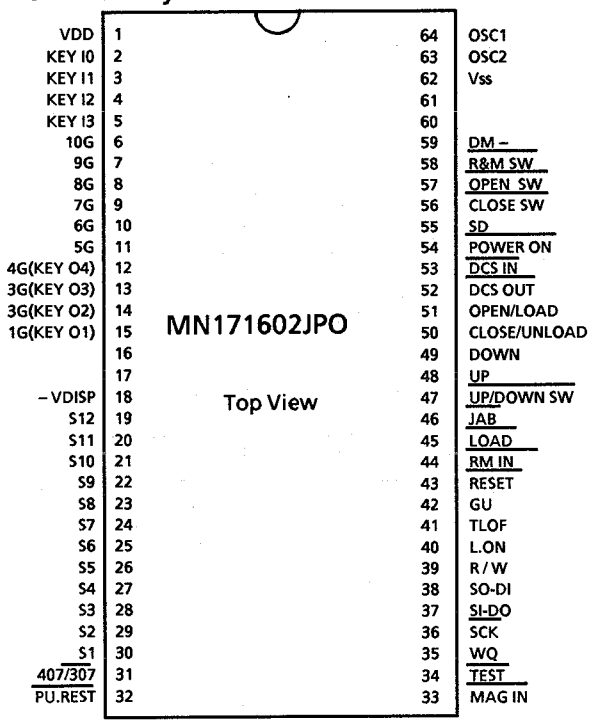
Areas	Line Voltage & Frequency	Power Consumption
U.S.A.	AC120V~, 60Hz	18watts
Canada		
Continental Europe	AC230V~, 50Hz	
Germany	AC230V~, 50Hz	
U.K.	AC240V~, 50Hz	
Australia		
Other areas	AC115-127/220-240V~selectable, 50/60Hz	

- Design and specifications subject to change without notice.

Description of Major LSIs

■ MN171602JPO (IC201) : CD SYSTEM CONTROLLER

1. Terminal Layout



2. Key Matrix

	KEY IN 0	KEY IN 1	KEY IN2	KEY IN3
KEY OUT 1	▶▶| +1	|◀◀ +10	■ /CANCEL	▶/II
KEY OUT 2	DISPLAY	REPEAT ALL/1	PLAY MODE	DISC
KEY OUT 3	SIDE A/B	MEMORY	CALL	INTRO
KEY OUT 4	POWER	EJECT ▲	OPEN/CLOSE	EDIT

3. Pin Functions Description

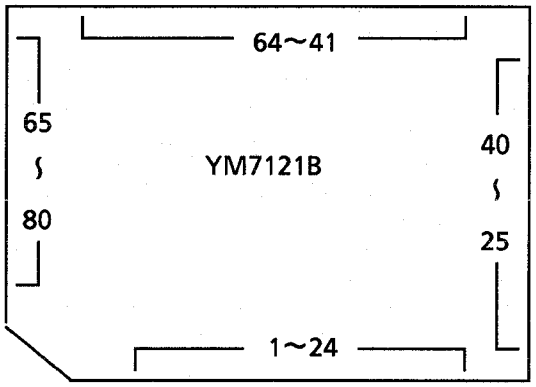
Pin NO.	symbol	I/O	Function	Pin NO.	symbol	I/O	Function
1	VDD	I	Power supply	33	MAG-IN	I	Magazine in signal
2	KEY I0	I	Key matrix input	34	TEST	I	Entering test mode with "L"
3	KEY I1	I	Key matrix input	35	WQ	I	Write request input
4	KEY I2	I	Key matrix input	36	SCK	O	Clock output for data transfers
5	KEY I3	I	Key matrix input	37	SI-DO	I	Serial data input
6	10G	O	FL grid control output	38	SO-DI	O	Serial data output
7	9G	O	FL grid control output	39	R/W	O	Read / Write signal output
8	8G	O	FL grid control output	40	L.ON	O	Turns on laser
9	7G	O	FL grid control output	41	TLOF	O	Tracking servo off signal
10	6G	O	FL grid control output	42	GU	O	Increases tracking gain
11	5G	O	FL grid control output	43	RESET	I	Reset signal input
12	4G(KEY O4)	O	FL grid control output (Key matrix output)	44	RM IN	I	Connect to GND
13	3G(KEY O3)	O	FL grid control output (Key matrix output)	45	LOAD	I	Disc load detect signal
14	2G(KEY O2)	O	FL grid control output (Key matrix output)	46	JAB	I	JAB switch signal
15	1G(KEY O1)	O	FL grid control output (Key matrix output)	47	UP/DOWN SW	I	Height detection signal
16		-	Non connect	48	UP	O	Lifter driving control signal
17		-	Non connect	49	DOWN	O	Lifter driving control signal
18	-VDISP	I	FL power supply	50	CLOSE/UNLOAD	O	P1 CLOSE or UNLOAD driving control signal.
19	S12	O	FL segment control output	51	OPEN/LOAD	O	P1 OPEN or LOAD.
20	S11	O	FL segment control output	52	DCS OUT	O	Compulink signal output
21	S10	O	FL segment control output	53	DCS IN	I	Compulink signal input
22	S9	O	FL segment control output	54	POWER ON	O	H:power off, L:power oN.
23	S8	O	FL segment control output	55	SD	O	LOAD drive speed Down output.
24	S7	O	FL segment control output	56	CLOSE SW	I	"L" with tray closed
25	S6	O	FL segment control output	57	OPEN SW	I	"L" with tray opened
26	S5	O	FL segment control output	58	R&M SW	I	Reset&Memory SW input.
27	S4	O	FL segment control output	59	DM-	I	Spindle signal input
28	S3	O	FL segment control output	60		-	Connect to GND
29	S2	O	FL segment control output	61		-	Non connect
30	S1	O	FL segment control output	62	Vss	-	GND
31	407/307	I	Chip select input (H:406/407,L:306/307)	63	OSC2	O	Clock oscillation output
32	PU.REST	I	"L" with pickup at rest position	64	OSC1	I	Clock oscillation input

■YM7121B(IC401)

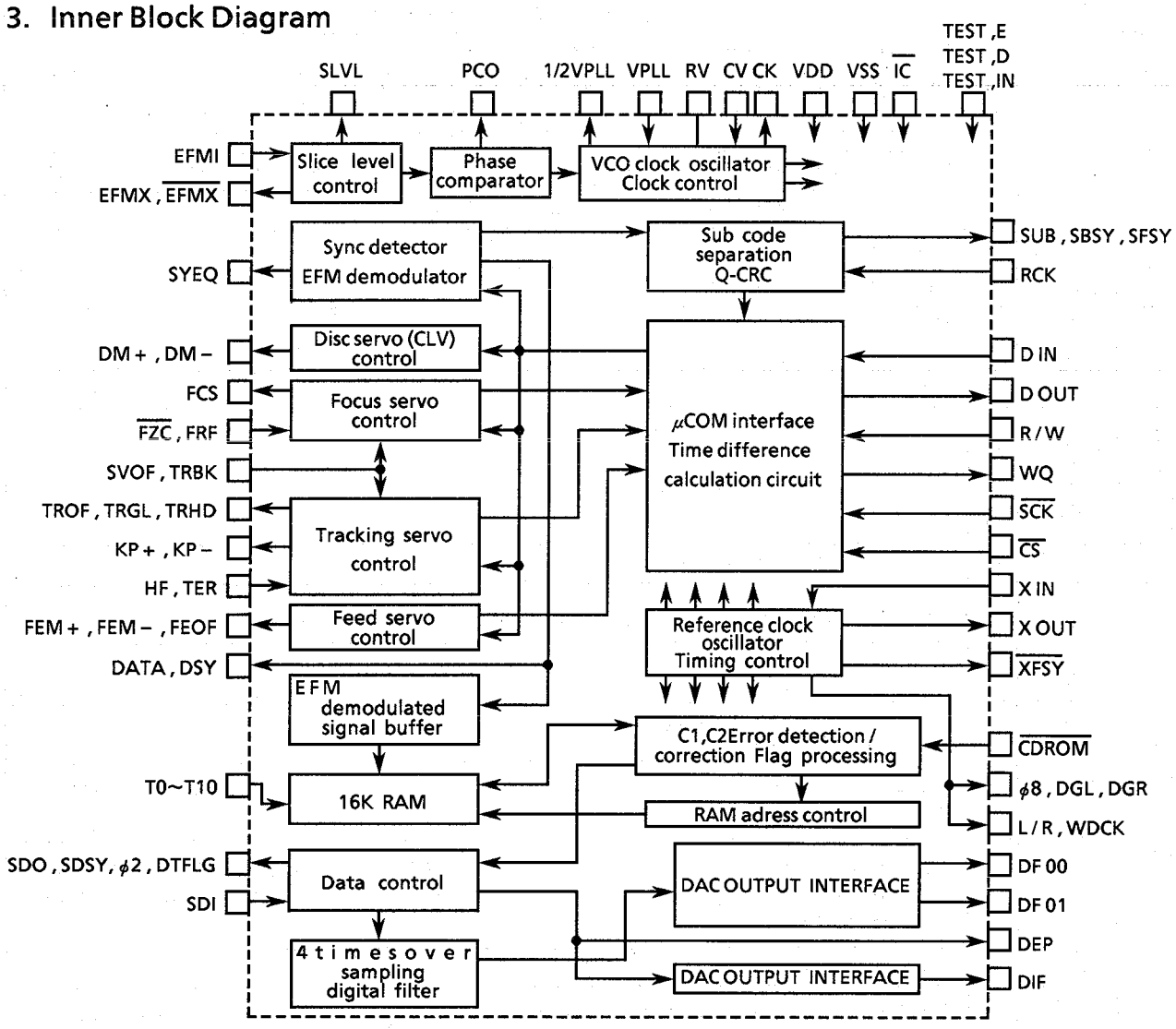
1. Outline

YM7121 is a C-MOS LSI for signal processing and servo control (SVC) in a CD player. It is used for the demodulation of the EFM signal from the laser pick up , detection / correction of the error signal , signal processing in digital filtering , etc. and for various servo controls (focusing , disc , tracking and feed servos).
And it contains digital interface which output the audio digital signals in S-RAM and CD-player. This digital interface matches EIAJ standards.

2. Top View



3. Inner Block Diagram



4. Pin Functions Description

Pin No.	Symbol	I/O	Function
1	CV	I	Adequate time constant is added to this terminal and input the PCO output. This makes the structure of clock reproduce circuit by inner VCO circuit.
2	RV	–	RV terminal is standard voltage terminal of inner VCO. And capacity for stabilizing is added to this terminal.
3 32 72	VDD	–	These are +5V power supply terminals.
4 5 70	TEST. IN TEST. E TEST. D	I I I	These terminals are for test.
6	SYEQ	O	This is the check output terminal, it becomes high when flame synchronizing signal detected from EFM pattern coincides frame synchronizing signal from internal counter.
7	DSY	O	DSY is synchronizing signal which becomes high when first signal of data output comes in. This terminal is the check terminal.
8	DATA	O	This terminal is for checks. The DATA is a serial signal of CK bit rate and it contains 8 bit EFM demodulation signal and 5 bit data control signal in 17 bit.
9	CK	O	CK has 4.3218 MHz clock.
10~19	T0~T9	I	This terminal is internal RAM test terminal, and connected GND.
22	DEP	O	De-emphasis is necessary when this terminal is high.
23	DIF	O	DIF is digital audio interface format output matched EIAJ standards.
24	SDO	O	SDO is a serial signal output of $\phi 2$ bit rate. (The MSB puts in at first.)
25	SDI	I	SDI is the input terminal of 4 times over sampling digital filter. It is usually connected with SDO.
26	SDSY	O	This terminal changes the Lch / Rch by LSB of the SDO.
27	DTFLG	O	Not used.
28	$\phi 2$	O	$\phi 2$ is 2.1168 MHz crystal clock.
29, 52, 77	VSS	–	GND
30 31	XOUT XIN	O I	The clock frequency is generated by crystal oscillator (16.9344MHz) and connecting capacitors each pin.
33 34 35 36 37 38	$\overline{\text{XFSY}}$ SUB SBSY RCK $\overline{\text{SFSY}}$ CDROM	O O O I O O	Not used.
39	$\phi 8$	O	$\phi 8$ is 8.4672MHz crystal clock.
40 41	WDCK L/R	O O	This is synchronizing signal for data transfer and it connects with DAC.
42 43	DGL DGR	O O	Not used.
44 45	DF01 DF00	O O	Serial data output. (Right channel.) Serial data output. (Left channel.)
46	$\overline{\text{SCK}}$	I	This terminal is connected to μCOM. It is an input terminal that carries the clock signal for data transfers.
47	R/W	I	This connects with microcomputer and it is an output terminal for switching data transmission mode. it enables to transmit data from SVC to microcomputer when R/M is "L" and from microcomputer to SVC when R/W is "H".
48	$\overline{\text{CS}}$	I	This is a chip select terminal for YM7121B.
49	DOUT	O	This terminal is the data output terminal connected to μCOM. When R/W is low, data is transferred from YM7121B to μCOM, according to theSCK clock input.

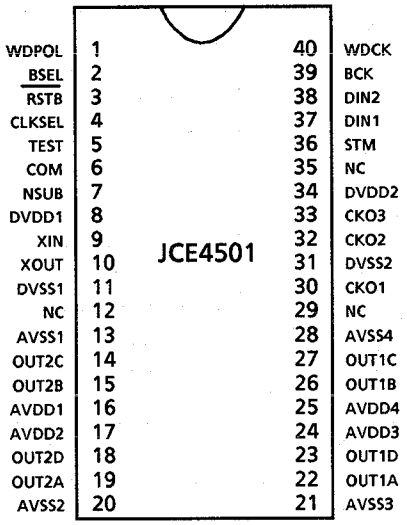
Pin No.	Symbol	I/O	Function
50	WQ	O	This terminal is connected to μCOM. It is a request signal which demands to μCOM inputting the data transfer (YM7121B to μCOM).
51	DIN	I	This is a data input terminal connected to μCOM. When R/W is high, the data is transferred from μCOM to YM7121B according to the SCK clock input.
53 54	DM+ DM−	O O	These terminals output the PWM to control the speed of spindle motor. The speed of the motor goes up when DM+ is high, and slows down when DM− is high: both terminals can not become high simultaneously.
55 56 60 61 62 63 64	HF TER TRHD TRGL TROF KP− KP+	I I O O O O O	When tracks are being crossed during serches, the amplitude variation of the generated HF signal is sampled at the zero − cross point of the tracking error signal TER and the TROF signal is output. The level variations of this signal turn the servo on and off, greatly facilitaing track acquisition. KP+ or KP− is output to conduct tracking, and TRHD is output during tracking to cause generation of the tracking error signal. The TRGL signal is for increasing the tracking gain after tracking is completed.
57 58 59	FEM+ FEM− FEOF	O O O	The FEM+ and FEM− are output as high speed feed signals, and FEOF signal is output for cutting the feed servo during high speed feed.
65	TRBK	I	TRBK is input to apply tracking brake from outside. TRGL becomes low with high input and inner control signal TBKE becomes high.
66	SVOF	I	When the signal inputs to SVOF, tracking and feed srvo set to OFF. TROF and FEOF become "H" with high input, and TRHD, KP+, KP− become low.
67 68 69	$\overline{FZC}$ FCS FRF	I O I	These terminals are used for controlling the focus servo. The FCS is for a leading signal of Focusing; the signal, generated when the focus point is achieved, terminate the focusing operation; and FCO flag is dropped internally by FRF signal generated when reflected light is detected.
71	$\overline{IC}$	I	YM7121B needs initializing when power supply turn on. IC will be low more than 400μs since XIN is input clock with VDD standard.
73 74 75	SLVL EFMX $\overline{EFMX}$	O O O	Amplitude limited, mutually anti-phased signals are output from EFMX and $\overline{EMFX}$. Slice level is controlled by these signals and external amplifier. SLVL is output amplitude alteration component of both terminals. When integral circuit is connected to external. YM7121B easily can control slice level.
76	EFMI	I	This terminal is input EFM signal. (1~2 Vpp)
78	PCO	O	This terminal outputs the phase difference when the polarity of the clock and the EFM pattern changes.
79	VPLL	I	This terminal is input D.C. voltage matched VCO free run frequency. (17.2872 MHz)
80	1/2 VPLL	O	This terminal outputs a half of VPLL input, and capacity for stabilizing is added to this terminal.

■ JCE4501(IC703)···D/A CONVERTER

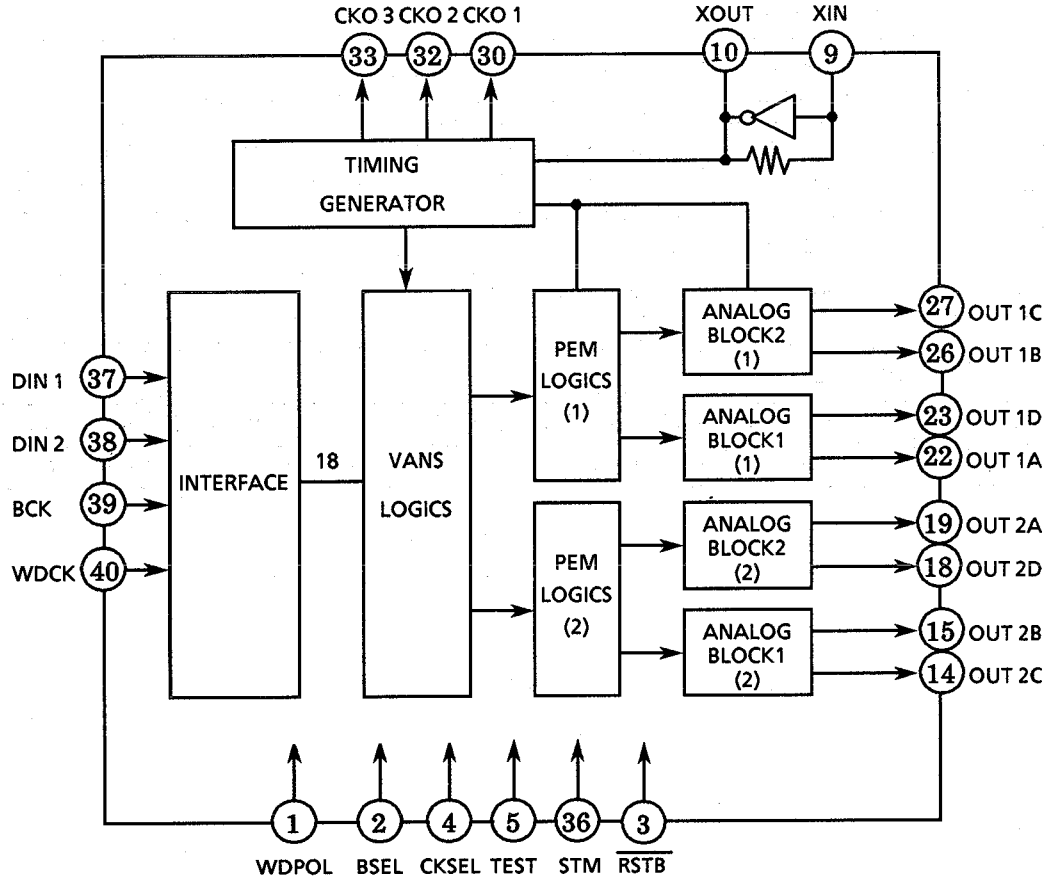
1. Outline

The JCE4501 is a CMOS digital-analog converter with independent left and right channels. It was developed for PCM digital audio equipment. It features pulse edge modulation (PEM) and Victor advanced noise shaping (VANS) for resolution equivalent to 20 bits (0-20 kHz) and a low distortion ratio. At JVC, this type of digital-analog converter is called a DD converter.

2. Terminal Layout



3. Internal Block Diagram



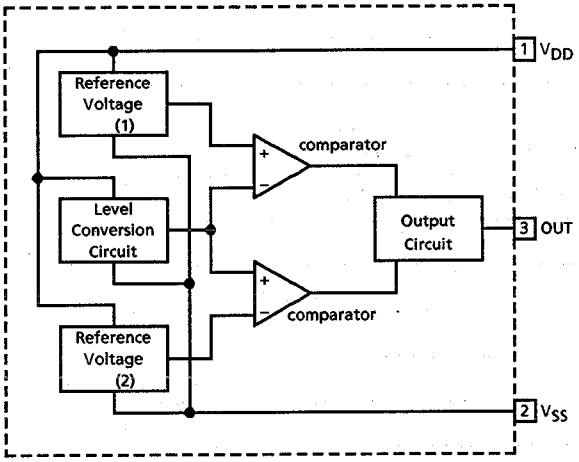
4. Pin Functions Description

Pin No.	Symbol	I/O	Function
1	WDPOL	I	Word data polarity switching pin
2	BSEL	I	High : CXD 2554P format, low : YM3414 format
3	$\overline{\text{RSTB}}$	I	Reset pin (low active)
4	CLKSEL	I	High: 256Fs mode, low: 384 Fs mode
5	TEST	I	Test mode switching pin
6	COM	I	COM board voltage fastening pin (connected to D-VDD)
7	NSUB	I	Silicon board voltage fastening pin (connected to D-VDD)
8	DVDD1	—	Digital power supply pin 1
9	XIN	I	Crystal oscillator input pin
10	XOUT	O	Crystal oscillator output pin
11	DVSS1	—	Digital ground pin 1
12	NC	—	To ground
13	AVSS1	—	Analog ground pin 1
14	OUT2C	O	2C PEM output pin
15	OUT2B	O	2B PEM output pin
16	AVDD1	—	Analog power supply pin 1
17	AVDD2	—	Analog power supply pin 2
18	OUT2D	O	2D PEM output pin
19	OUT2A	O	2A PEM output pin
20	AVSS2	—	Analog ground pin 2
21	AVSS3	—	Analog ground pin 3
22	OUT1A	O	1A PEM output pin
23	OUT1D	O	1D PEM output pin
24	AVDD3	—	Analog power supply pin 3
25	AVDD4	—	Analog power supply pin 4
26	OUT1B	O	1B PEM output pin
27	OUT1C	O	1C PEM output pin
28	AVSS4	—	Analog ground pin 4
29	NC	—	To ground
30	CKO1	O	Clock output pin 1 (384 Fs output)
31	DVSS2	—	Digital ground pin 2
32	CKO2	O	Clock output pin 2 (192 Fs output)
33	CKO3	O	Clock output pin 3 (128 Fs output)
34	DVDD2	—	Digital power supply pin 2
35	NC	—	Not connected
36	STM	I	Stereo/monaural switching pin (high: stereo output, low: left channel, reversed polarity left channel)
37	DIN1	I	Left channel 18-bits 8Fs serial data input pin
38	DIN2	I	Right channel 18-bits 8Fs serial data input pin
39	BCK	I	Bit clock input pin
40	WDCK	I	Word clock input pin

Internal Block Diagrams of Other ICs

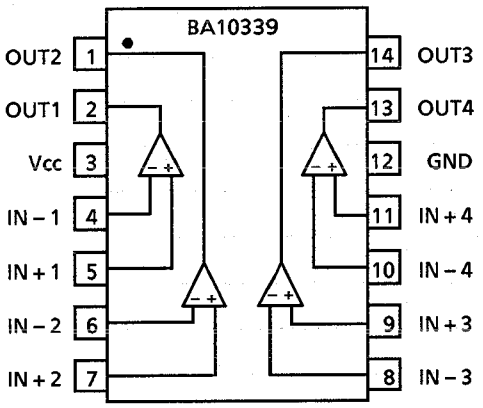
■ MN1280 (P.Q) or MN1281(P.Q): IC202 RESET IC

Block Diagram

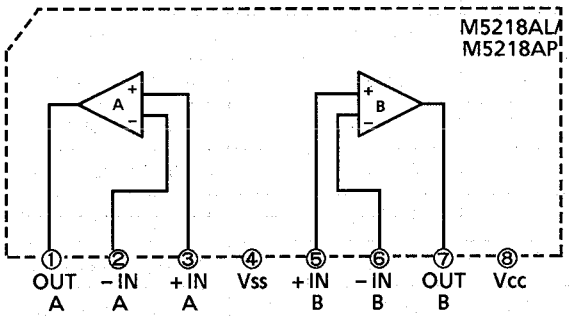


Pin No.	symbol	Function
1	V_{DD}	Power supply
2	V_{SS}	Ground
3	OUT	Reset signal output : Low level is output when resetting : High level is output when cancelling the reset.

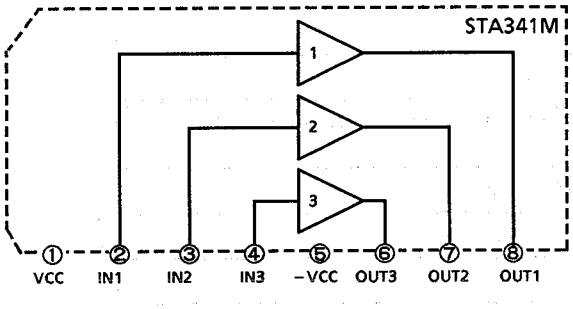
■ BA10339 (IC502) : Comparator



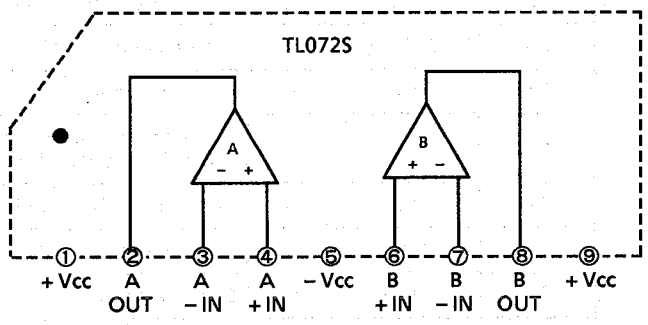
■ M5218AL/M5218AP (IC251,503,701,702, : Dual OP Amp. 802,851,871)



■ STA341M (IC801) : Motor Driver



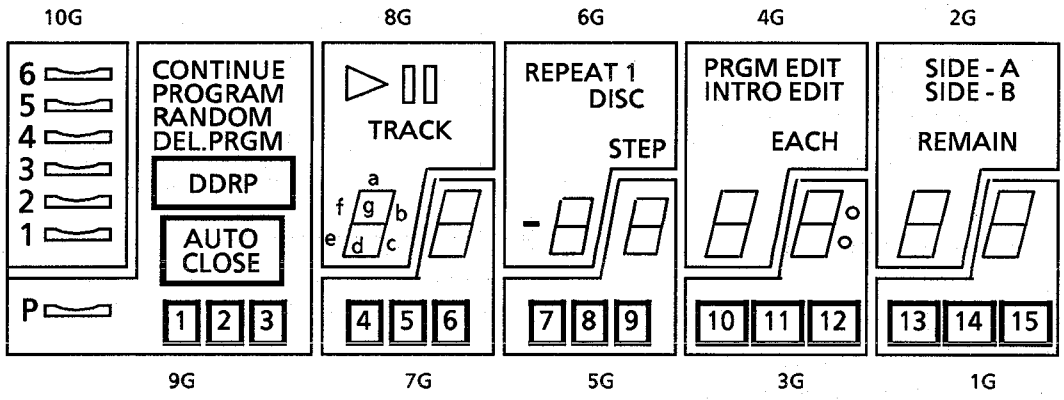
■ TL072S (IC501) : Dual OP Amp.



Internal Connections of FL Display Tube

■ ELU0001-132 (FL201)

1. Grid Layout



2. Pin Connections

Terminal No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ELECTRODE	F1	F1	F1	NP	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NC	NC	P(S12)	P(S11)

Terminal No	19	20	21	22	23	24	25	26	27	28	29	30	31	32
ELECTRODE	P(S10)	P(S9)	P(S8)	P(S7)	P(S6)	P(S5)	P(S4)	P(S3)	P(S2)	P(S1)	NP	F2	F2	F2

Notes
F: Filament
G: Grid
P: Anode
NP: No Pin
NC: No Connection

3. Anode Connection Table

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	6	—	—	—	-	—	—	—	—	—
S2	5	CONTINUE	TRACK	—	STEP	—	EACH	° °	REMAIN	—
S3	4	PROGRAM	a	a	a	a	a	a	a	a
S4	3	RANDOM	b	b	b	b	b	b	b	b
S5	2	DEL.PRGM	c	c	c	c	c	c	c	c
S6	1	DDRP	d	d	d	d	d	d	d	d
S7	(6)	AUTO CLOSE	e	e	e	e	e	e	e	e
S8	(5)	P	f	f	f	f	f	f	f	f
S9	(4)	(P)	g	g	g	g	g	g	g	g
S10	(3)	1	▷	4	REPEAT	7	PRGM EDIT	10	SIDE-A	13
S11	(2)	2	▯▯	5	1	8	INTRO	11	SIDE-B	14
S12	(1)	3	—	6	DISC	9	EDIT	12	—	15

Disassembly Procedures

1. Removing the top cover

1) Remove the 4 screws fastening both sides of the Top Cover, and the 2 screws fastening the rear sides.
2) Remove the Top Cover.

2. Removing the front panel

1) Remove the 3 screws Ⓐ fastening top of the Front Panel, and the 3 screws fastening bottom of the Front Panel.
2) Disconnect the connectors. (P251)
3) Remove the Front Panel.

3. Removing the changer assembly

1) Remove the top cover.
2) Remove the front panel.
3) Remove the 2 screws Ⓑ fastening the changer assembly.
4) Disconnect the connectors. (ⒸⒹⒺⒻⒼ)
5) Slide the changer assembly to arrow direction ①.
6) Remove the changer assembly.
   * NOTICE (for reinstalling)
   Wire Ⓗ should be set as Fig.2.

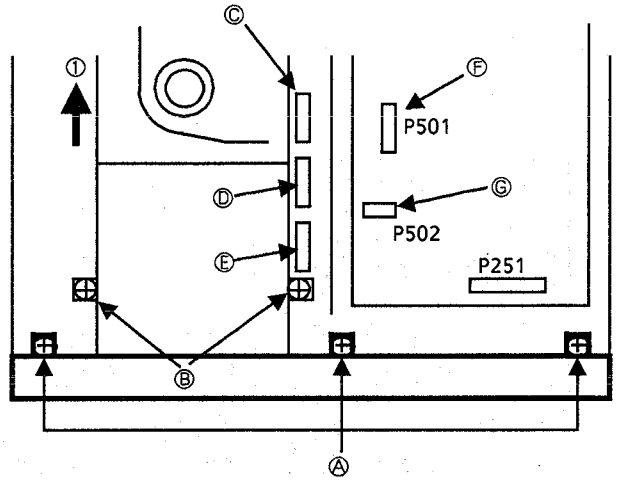


Fig.1

4. Removing the turntable base (Fig.2)

1) Remove the changer assembly.
2) Turn over the changer assembly.
3) Remove the 3 screws ①.
   * NOTICE : The left side spring differs from the right side ones.
4) Take the turntable base out.

5. Exchanging the pickup (Fig.2)

1) Remove the screw Ⓙ, and remove the feed nut support .
2) Remove the screw Ⓚ.
3) Remove the Feed Screw assembly , and remove the Pickup with the pickup shaft .
4) Exchange the pickup.

6. Removing the magazine holder (Fig.3)

1) Remove the 2 screws fastening the magazine holder .
2) Slide the magazine holder to arrow direction Ⓛ.
3) Remove the magazine holder to upside , and remove the tray stopper at the same time.

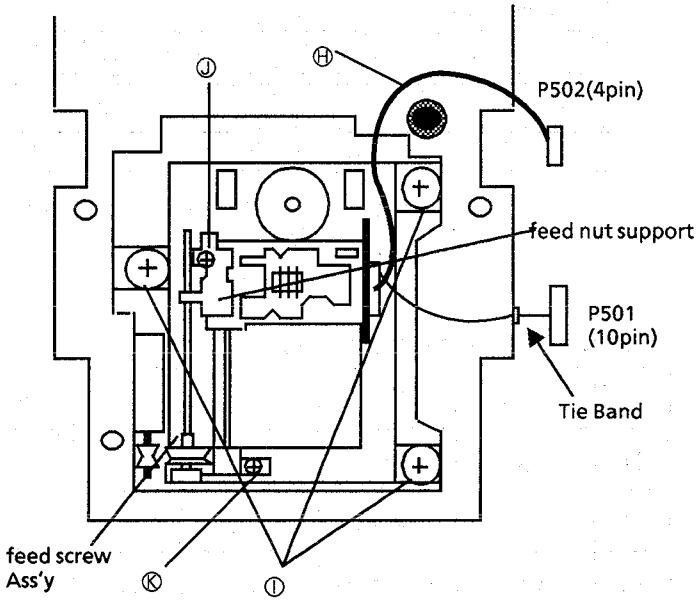


Fig.2

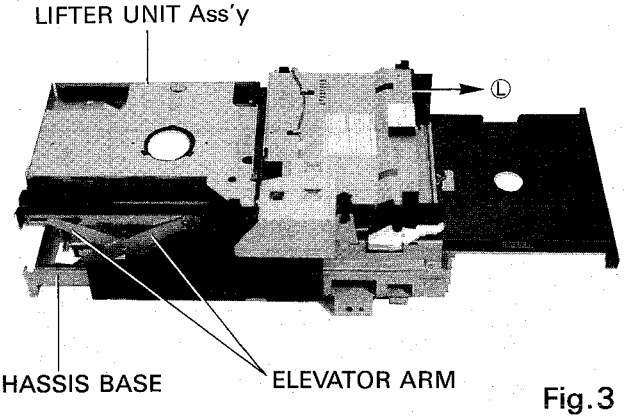


Fig.3

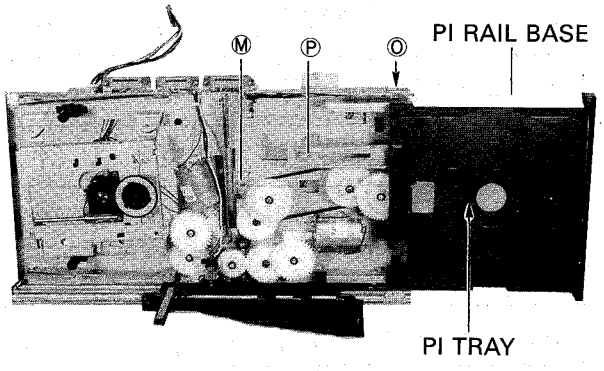


Fig.4

7. Removing the LIFTER UNIT Ass'y (Fig.3)

1) Remove the MAGAZINE HOLDER.
2) Lift the LIFTER UNIT Ass'y to the top position.
3) Remove the ELEVATOR ARMS from the CHASSIS BASE and the LIFTER UNIT Ass'y.
4) Remove the LIFTER UNIT Ass'y.

※ The LIFT CAM can be released, After removing the LIFTER UNIT Ass'y (Fig.7)

1) When installing the lift cam, Put the cam slider to the position shown in fig 7.
2) Install the changer assembly.
3) Set the power ON to operate the mechanism.
4) Set the power OFF while the disc is playing.
5) Set the power ON again. In this case the unit will be reseted.

8. Removing the P1 RAIL BASE Ass'y (Fig.4,8)

1) Rotate the gear Ⓝ clockwise a little.
2) Remove the P1 TRAY.
3) Remove the screw Ⓜ.
4) Remove the P1 RAIL BASE Ass'y.

9. Removing the P1 RAIL BASE (Fig.4,5,6)

1) Remove the P1 RAIL BASE Ass'y.
2) Remove the screw Ⓞ fixing the open/close sw and the sw.
3) Pull the P1 RAIL BASE by pulling up the hook Ⓟ sightly.
4) Remove the P1 RAIL BASE.

※ Install gear ⓑ so that part ⓐ shown in fig.5 is perpendicular to the P1 rail base.

The Gear Position when the P1 Rail Base is pulled out forward.

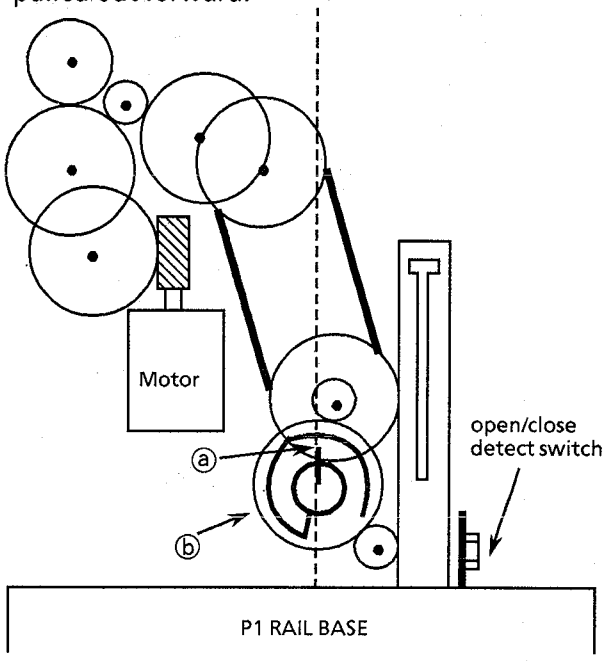


Fig.5

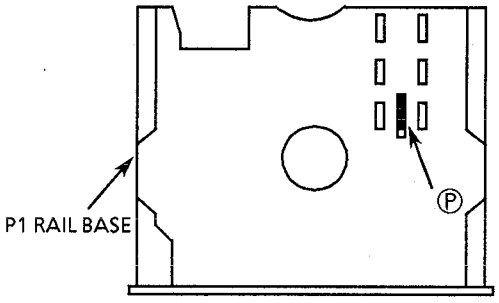


Fig.6

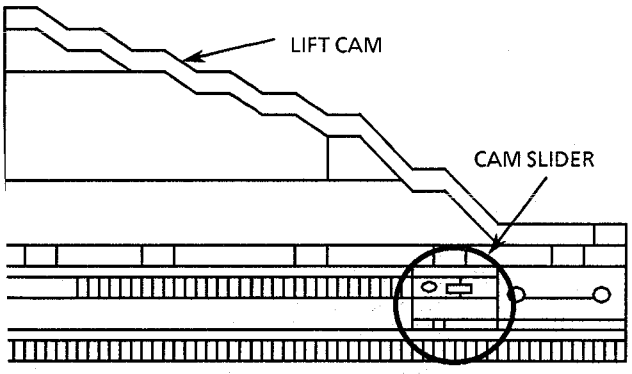


Fig.7

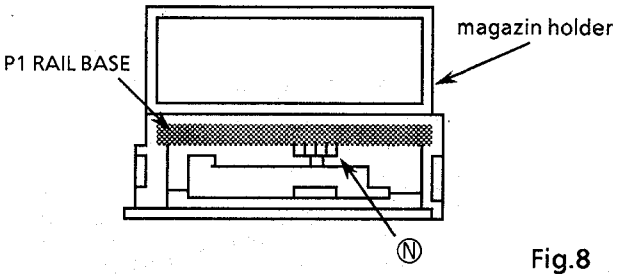
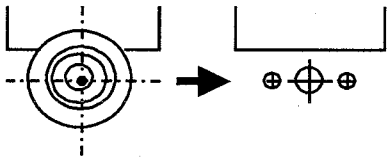


Fig.8

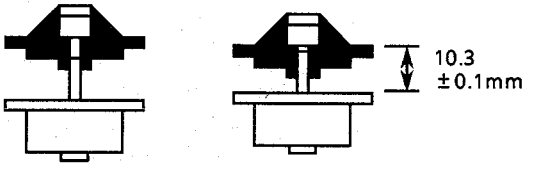
0. Removing the spindle motor

1) Remove the TURN TABLE BASE.
2) Turn over TURN TABLE BASE.
3) Remove the pressed-in turntable.
4) Remove the 2 screws fastening the motor.
5) Remove the spindle motor.

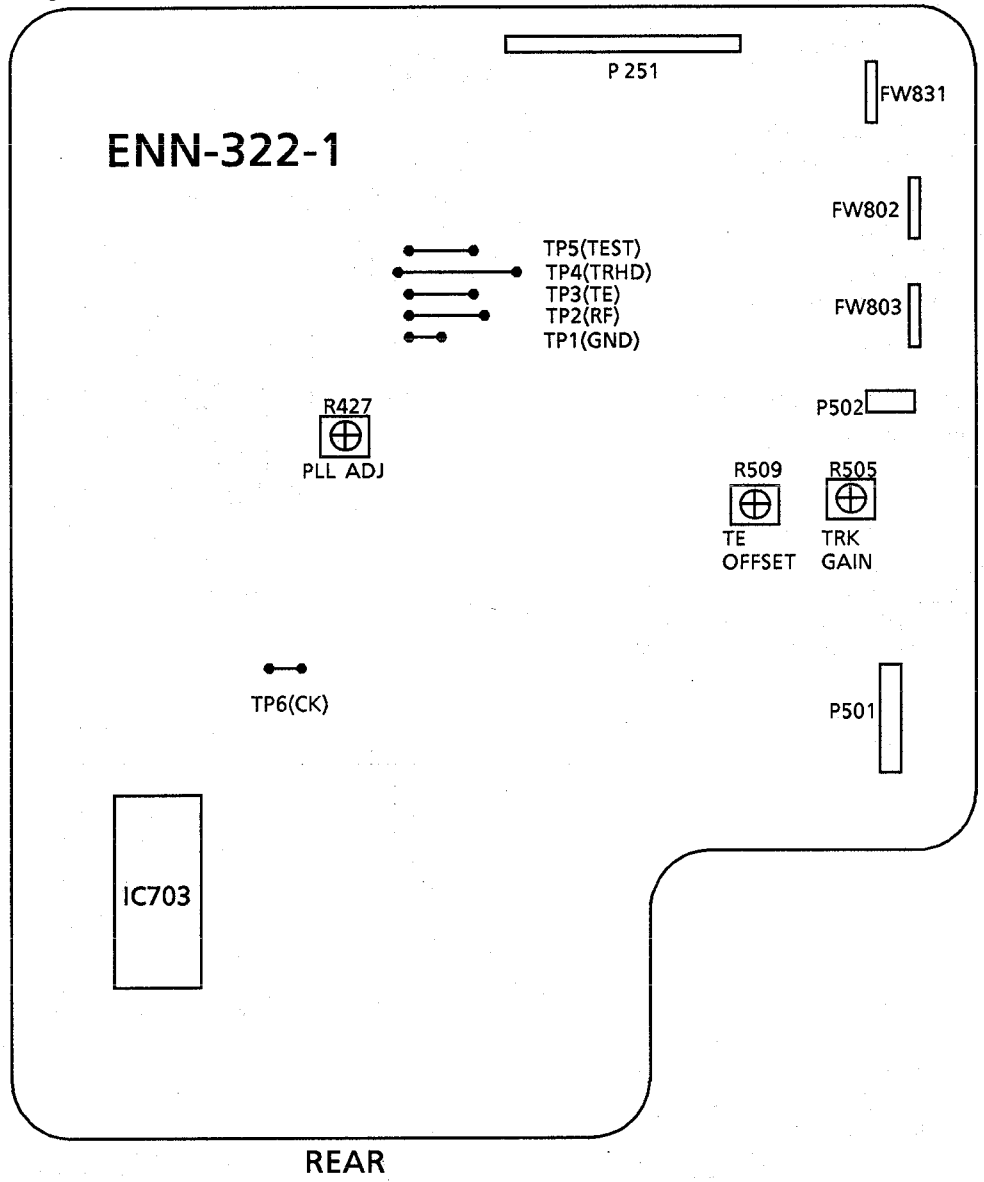


11. Mounting the spindle motor

1) Alternately tighten the 2 screws.
2) Fit the turntable by pressing gently at the centre to obtain a distance of 10.3mm ± 0.1mm from the mechanism base to the top of the turntable.



Adjustment Procedures



(1) PLL free-running adjustment

a. Measuring instrument
Frequency counter
b. Adjusting procedure
1. Connect a frequency counter with TP6 (CK) and TP1 (GND) on the main PC board.
2. Adjust R427 for setting the frequency counter's value becomes 4.295 ± 0.005MHz.
(On the STOP MODE)
3. Perform this adjustment immediately after the power is turned on.

(2) Tracking offset adjustment

a. Measuring instruments
Oscilloscope, Normal disc
b. Adjusting procedure
1. Connect an oscilloscope with TP3 (TE) and TP1 (GND) on the main PC board.
2. Play the disc.
3. Short circuit TP5 (TEST) to TP1 (GND).
4. Adjust R509 for Zero DC offset of the tracking error waveform.

Note: The tracking error waveform should be symmetrical around the 0V level.

(3) Tracking gain adjustment

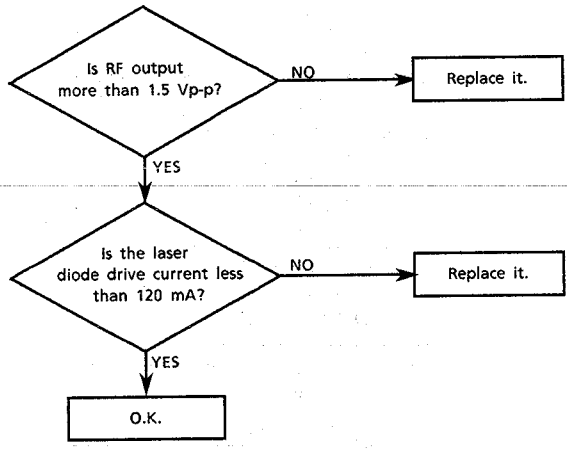
a. Measuring instruments
Oscilloscope, Normal disc
b. Adjusting procedure
1. Connect an oscilloscope with TP3 (TE) and TP1(GND) on the main PC board.
2. Play the disc.
3. Short circuit TP5 (TEST) to TP1 (GND).
4. Adjust R505 for 2.0 VP-P of tracking error signal.

Maintenance of Laser Pickup

(1) Life of the laser diode

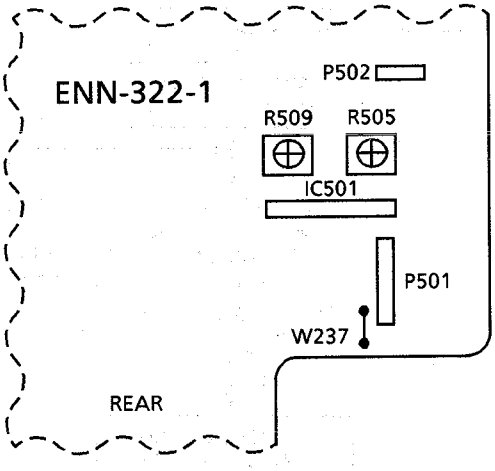
When the life of the laser diode has expired, the following symptoms will appear.

1. The level of RF output (EFM output: amplitude of eye pattern) will be low.
2. The drive current required by the laser diode will be increased.
   In such a case, check the life of the laser diode following the flowchart below



(2) Measurement of laser diode drive current

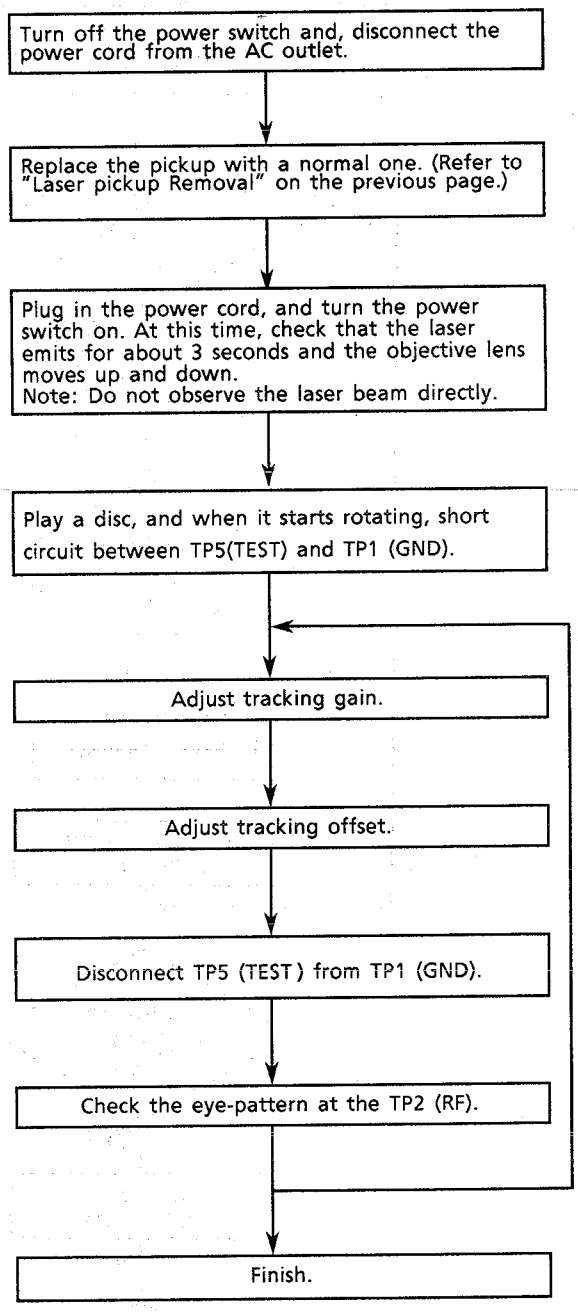
Replace the jump wire (W237) shown below with the resistor (1Ω).
Measure the voltage across the resistor with a milli-voltmeter. When the voltage is more than 120mV, it shows that the life of the laser diode has expired



(3) Semi-fixed resistor on the APC PC board

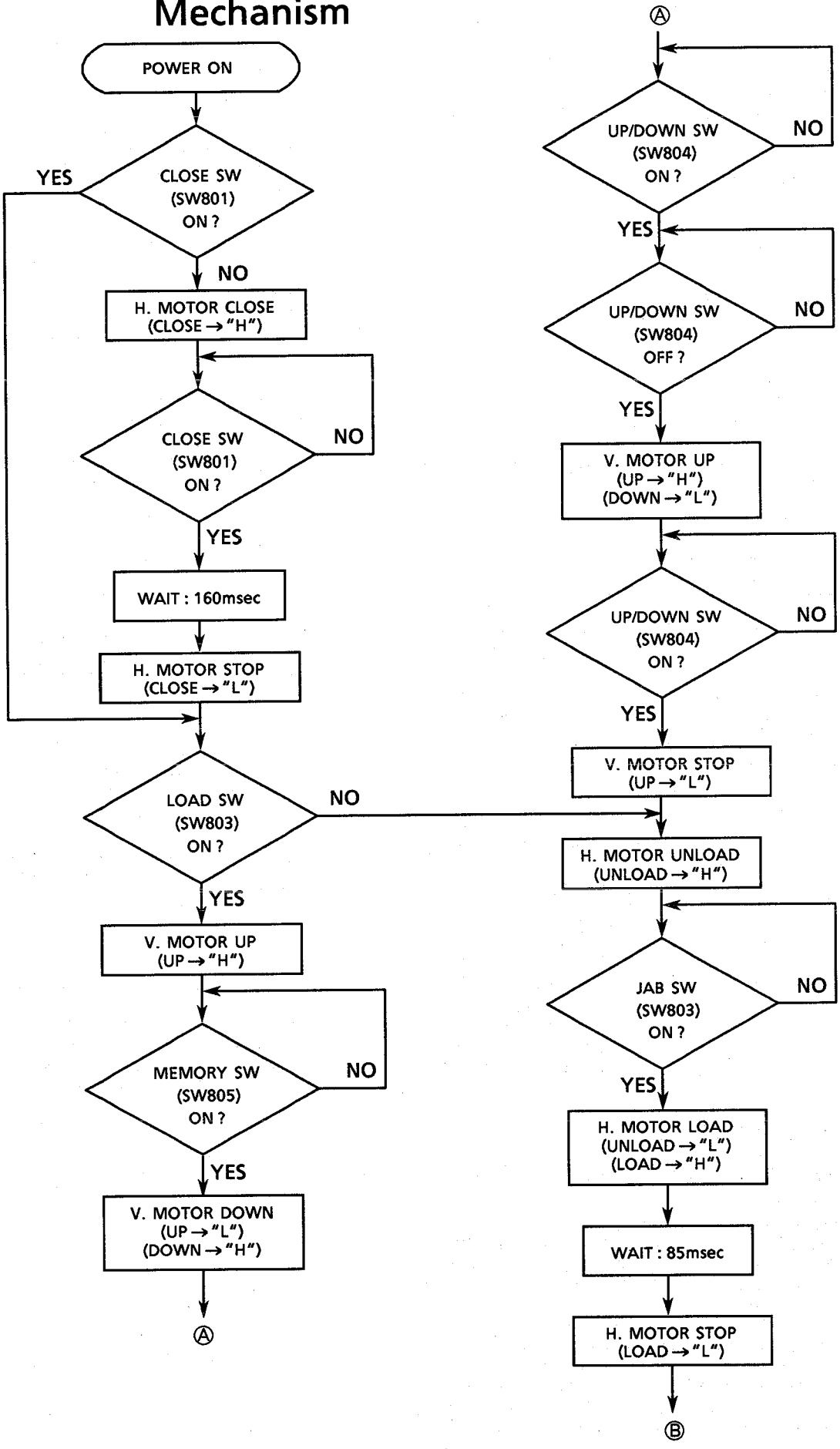
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.
If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced.
If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

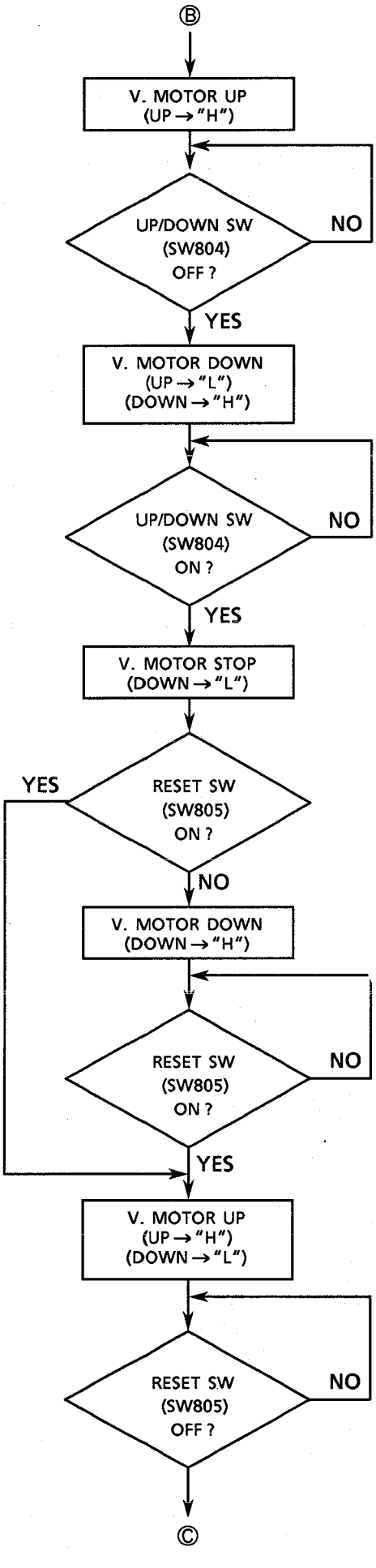
Replacement of Laser Pickup

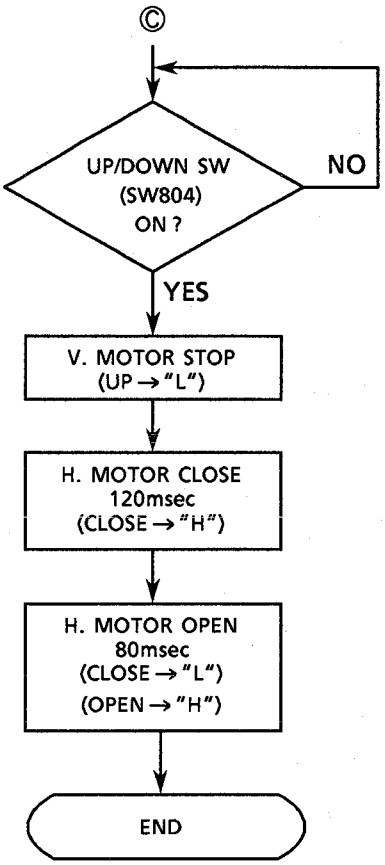

Turn off the power switch and, disconnect the power cord from the AC outlet.
Replace the pickup with a normal one. (Refer to "Laser pickup Removal" on the previous page.)
Plug in the power cord, and turn the power switch on. At this time, check that the laser emits for about 3 seconds and the objective lens moves up and down.
Note: Do not observe the laser beam directly.
Play a disc, and when it starts rotating, short circuit between TP5(TEST) and TP1 (GND).
Adjust tracking gain.
Adjust tracking offset.
Disconnect TP5 (TEST) from TP1 (GND).
Check the eye-pattern at the TP2 (RF).
Finish.

Note: Since one adjustment may affect other settings, repeat these adjustments a few times.

Initial Operation of Mechanism




Ⓑ
V. MOTOR UP
(UP → "H")
UP/DOWN SW
(SW804)
OFF ?
NO
YES
V. MOTOR DOWN
(UP → "L")
(DOWN → "H")
UP/DOWN SW
(SW804)
ON ?
NO
YES
V. MOTOR STOP
(DOWN → "L")
YES
RESET SW
(SW805)
ON ?
NO
V. MOTOR DOWN
(DOWN → "H")
RESET SW
(SW805)
ON ?
NO
YES
V. MOTOR UP
(UP → "H")
(DOWN → "L")
RESET SW
(SW805)
OFF ?
NO
Ⓒ


Ⓒ
UP/DOWN SW
(SW804)
ON ?
NO
YES
V. MOTOR STOP
(UP → "L")
H. MOTOR CLOSE
120msec
(CLOSE → "H")
H. MOTOR OPEN
80msec
(CLOSE → "L")
(OPEN → "H")
END

Operation check by each switch.

SW801 : Single tray open / close detect switch.
When a single tray is ejected, the open signal is "L"and when it is closed, the close signal is "L"

SW802 : Magazine in switch.
When a magazine is inserted, the switch is turned on.

SW803 : JAB switch.
When drive plate comes toward, the switch is turned on. (The switch is turned on momentarily.)

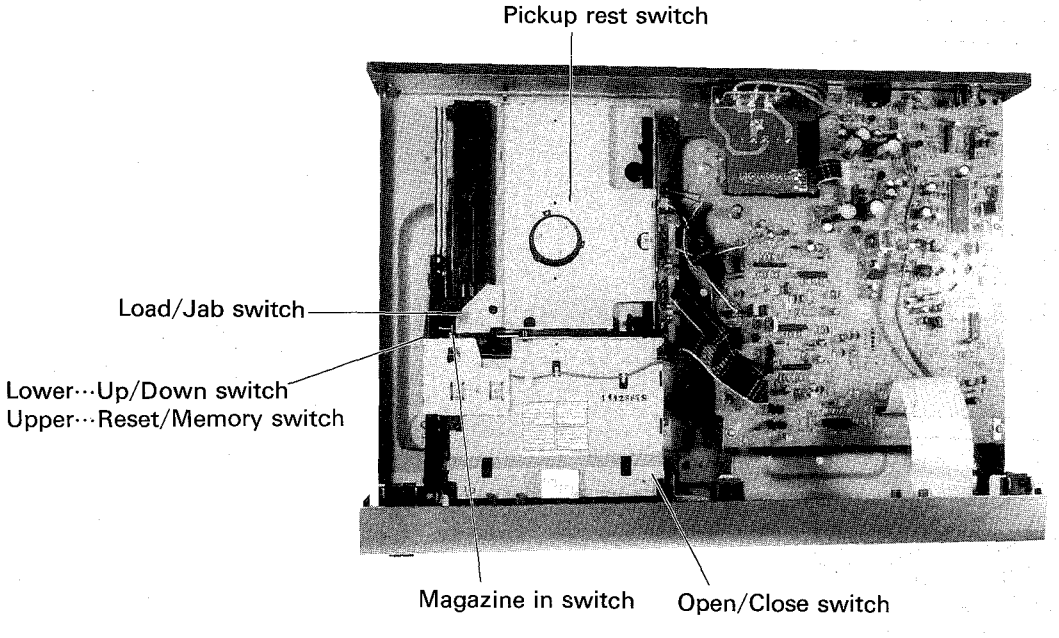
SW803 : Tray load switch.
When the tray of a disc is loaded, the switch is turned on.

SW804 : UP/DOWN switch.
When the mecmanism goes up or down, this sw turns on and off alternately.

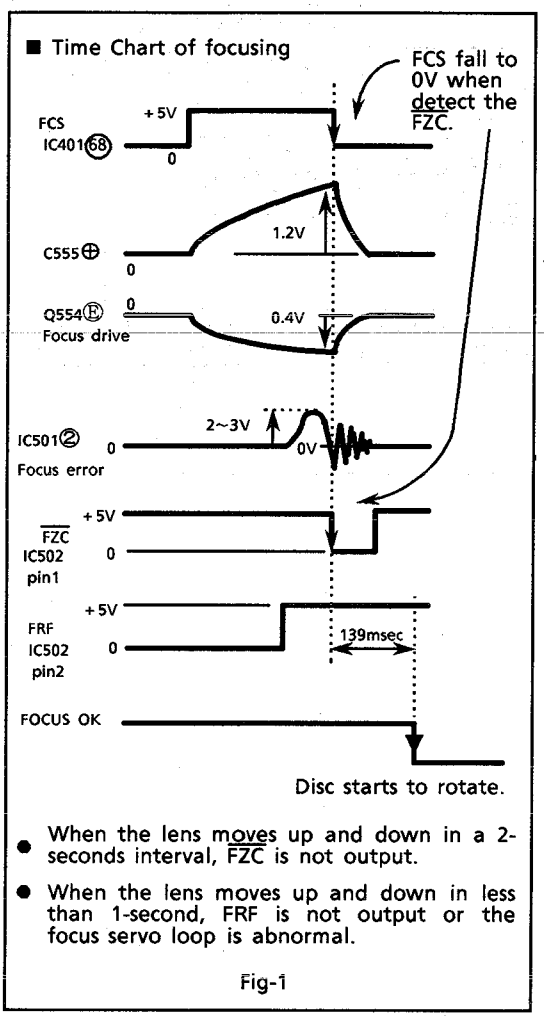
SW805 : Reset switch.
When the mechanism comes to the point undeer the initial position,the switch is turned on.

SW805 : Memory switch.
When the power is off in playing a disc, and on again, the switch detect which height the tray should be returned.

SW807 : Pickup rest switch.

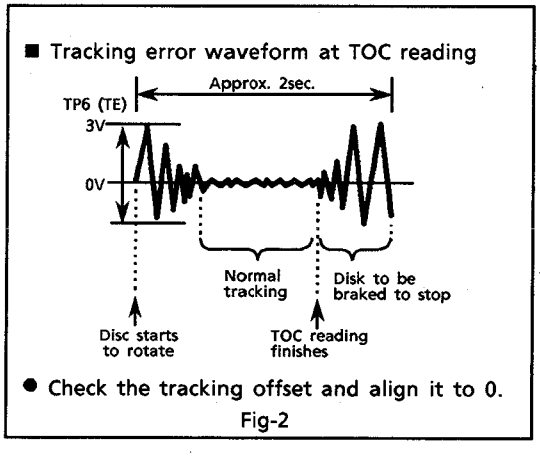


Flow of Functional Operation Until TOC is Read



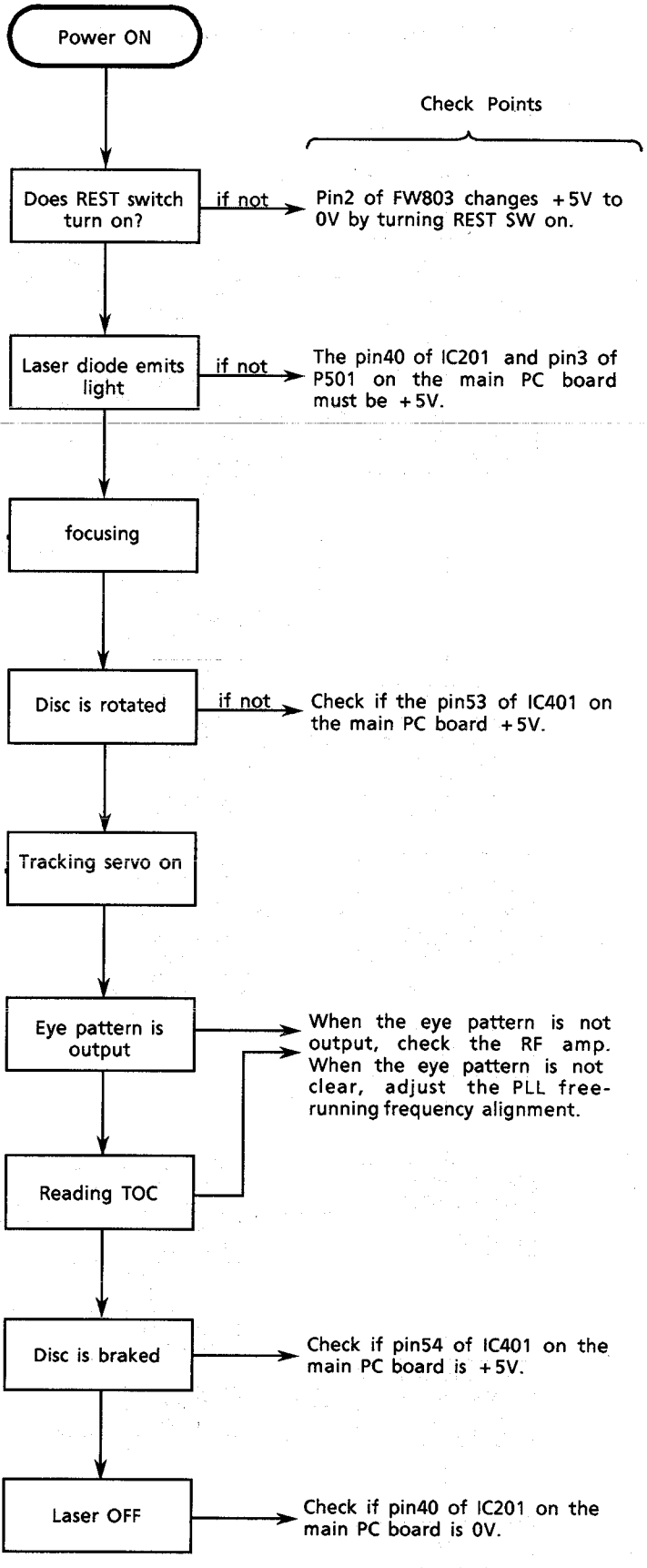
- When the lens moves up and down in a 2-seconds interval, FZC is not output.
- When the lens moves up and down in less than 1-second, FRF is not output or the focus servo loop is abnormal.

Fig-1



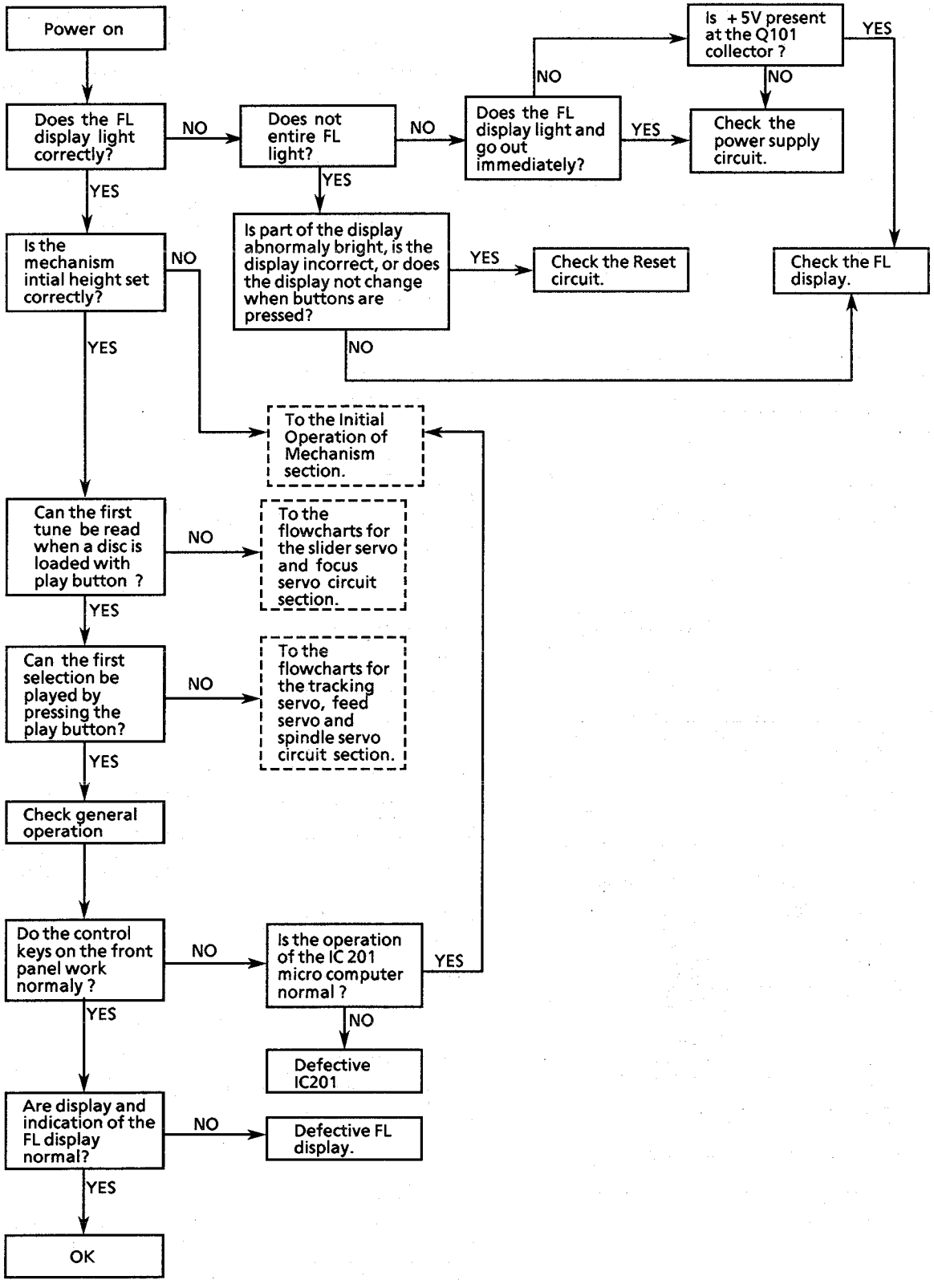
- Check the tracking offset and align it to 0.

Fig-2

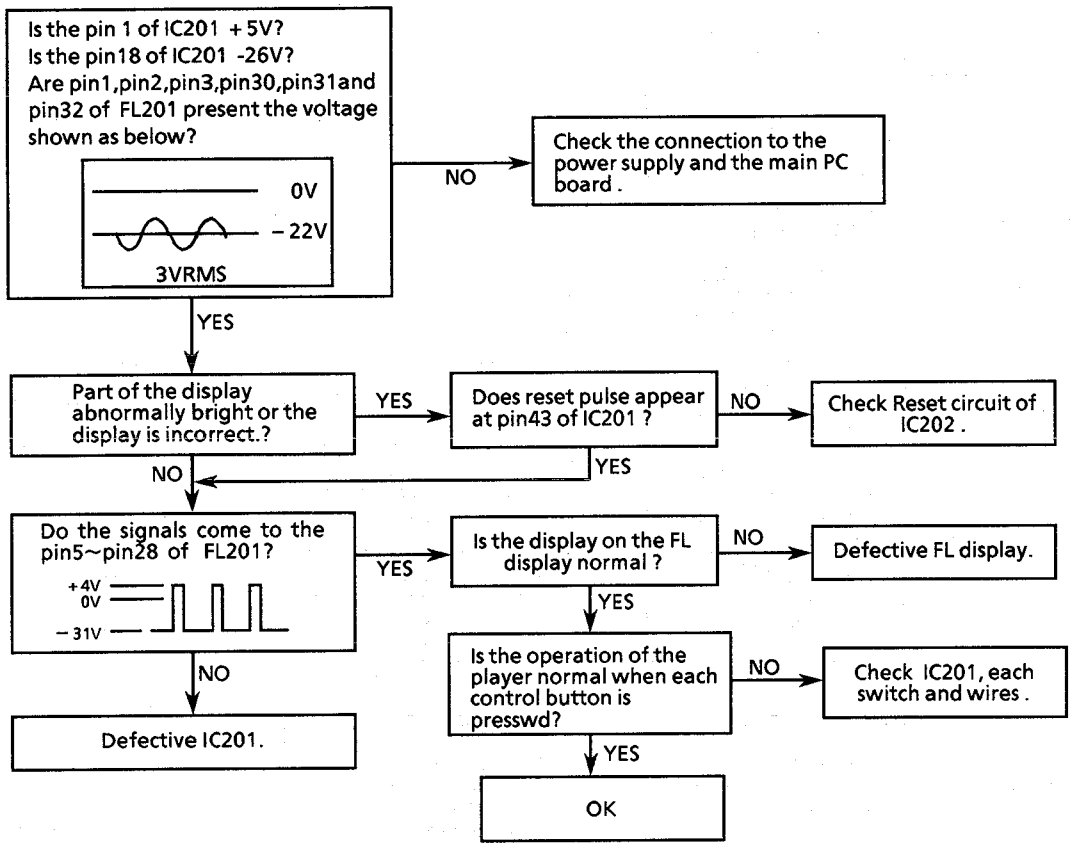

Power ON
Check Points
Does REST switch turn on?
if not
Pin2 of FW803 changes +5V to 0V by turning REST SW on.
Laser diode emits light
if not
The pin40 of IC201 and pin3 of P501 on the main PC board must be +5V.
focusing
Disc is rotated
if not
Check if the pin53 of IC401 on the main PC board +5V.
Tracking servo on
Eye pattern is output
When the eye pattern is not output, check the RF amp. When the eye pattern is not clear, adjust the PLL free-running frequency alignment.
Reading TOC
Disc is braked
Check if pin54 of IC401 on the main PC board is +5V.
Laser OFF
Check if pin40 of IC201 on the main PC board is 0V.

Troubleshooting

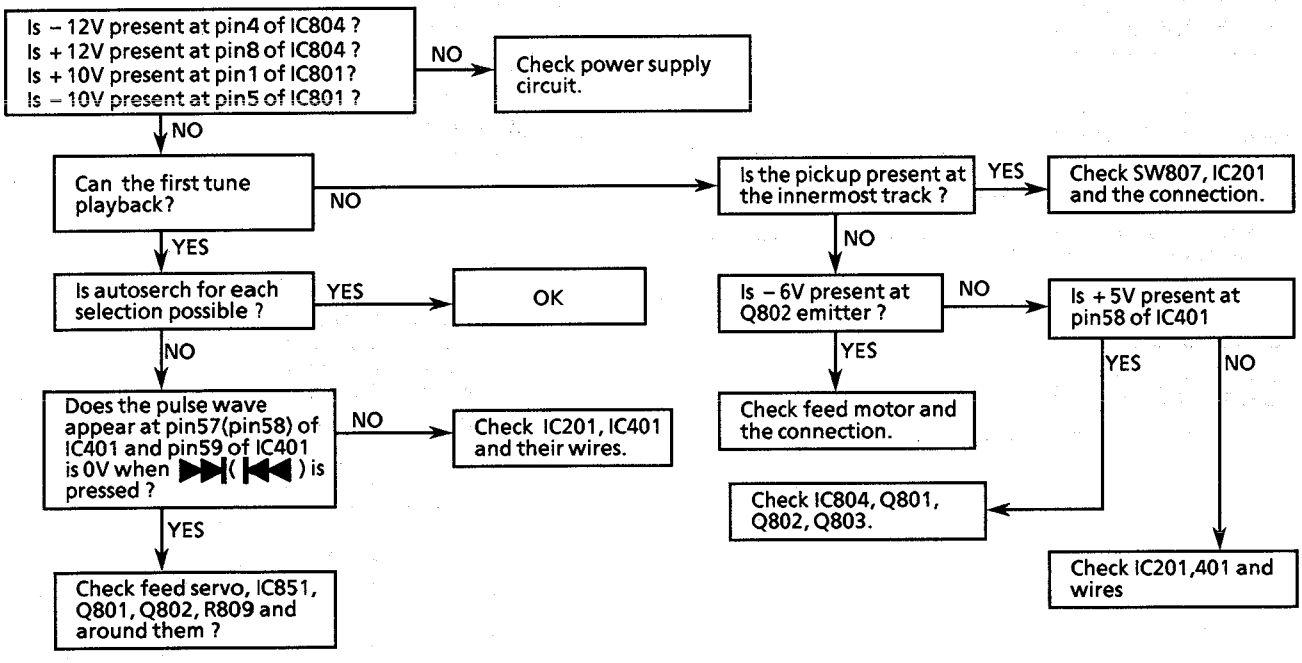
The following flowchart shows each circuit's condition about from "power on" until "ready to play".


Power on
Does the FL display light correctly?
NO
Does not entire FL light?
NO
Does the FL display light and go out immediately?
YES
Check the power supply circuit.
NO
Is +5V present at the Q101 collector ?
YES
NO
YES
Is part of the display abnormaly bright, is the display incorrect, or does the display not change when buttons are pressed?
YES
Check the Reset circuit.
NO
Check the FL display.
Is the mechanism intial height set correctly?
NO
YES
To the Initial Operation of Mechanism section.
Can the first tune be read when a disc is loaded with play button ?
NO
To the flowcharts for the slider servo and focus servo circuit section.
YES
Can the first selection be played by pressing the play button?
NO
To the flowcharts for the tracking servo, feed servo and spindle servo circuit section.
YES
Check general operation
Do the control keys on the front panel work normaly ?
NO
Is the operation of the IC 201 micro computer normal ?
YES
NO
Defective IC201
YES
Are display and indication of the FL display normal?
NO
Defective FL display.
YES
OK

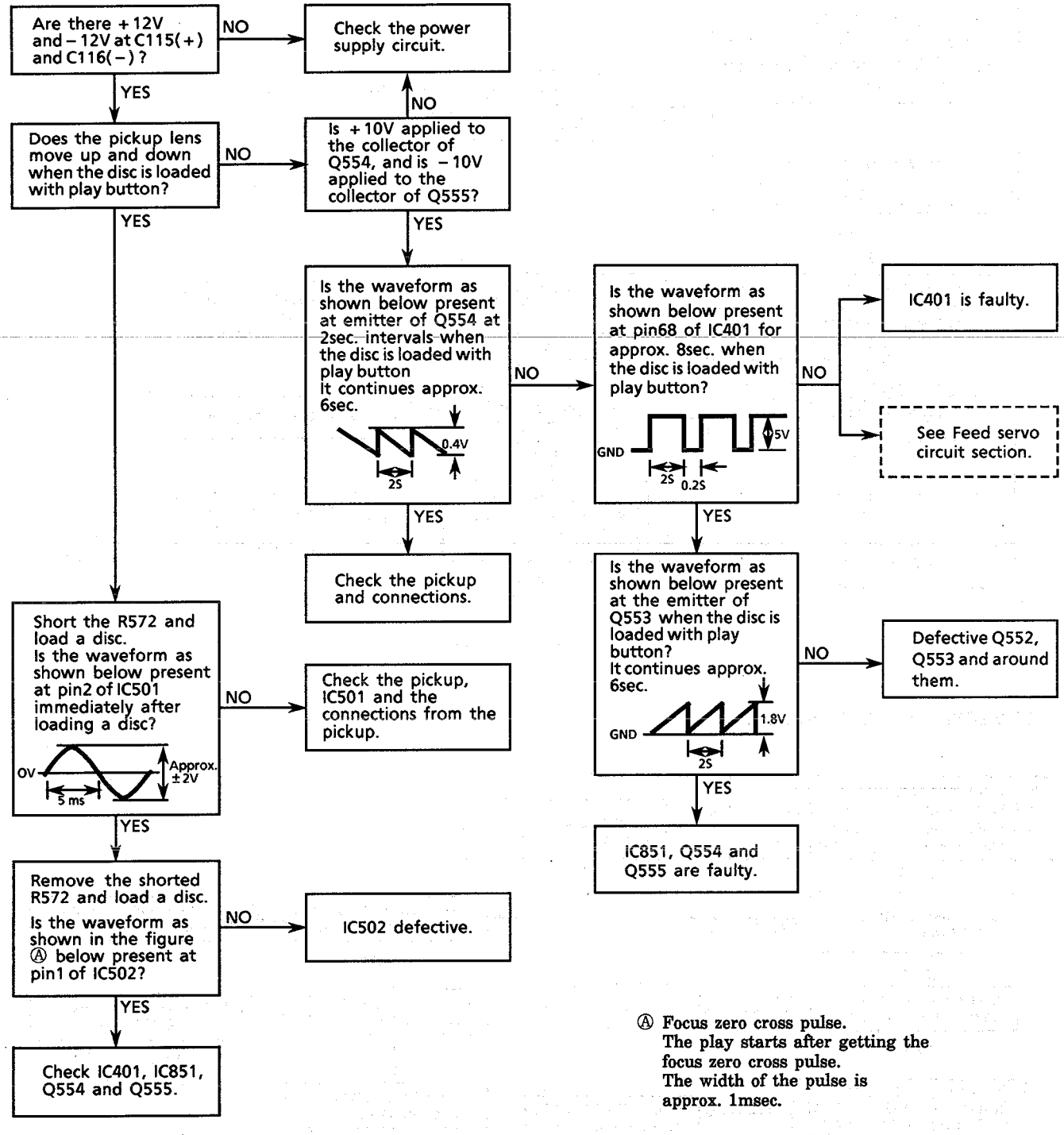
Front circuit Section



Feed servo circuit section

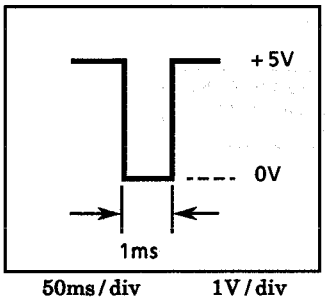

Is -12V present at pin4 of IC804 ?
Is +12V present at pin8 of IC804 ?
Is +10V present at pin1 of IC801?
Is -10V present at pin5 of IC801 ?
NO
Check power supply circuit.
NO
Can the first tune playback?
NO
Is the pickup present at the innermost track ?
YES
Check SW807, IC201 and the connection.
YES
NO
Is autoserch for each selection possible ?
YES
OK
Is -6V present at Q802 emitter ?
NO
Is +5V present at pin58 of IC401
NO
YES
YES
NO
Does the pulse wave appear at pin57(pin58) of IC401 and pin59 of IC401 is 0V when ▶▶| (|◀◀) is pressed ?
NO
Check IC201, IC401 and their wires.
YES
Check feed motor and the connection.
Check IC804, Q801, Q802, Q803.
Check feed servo, IC851, Q801, Q802, R809 and around them ?
Check IC201,401 and wires

Focus servo circuit section

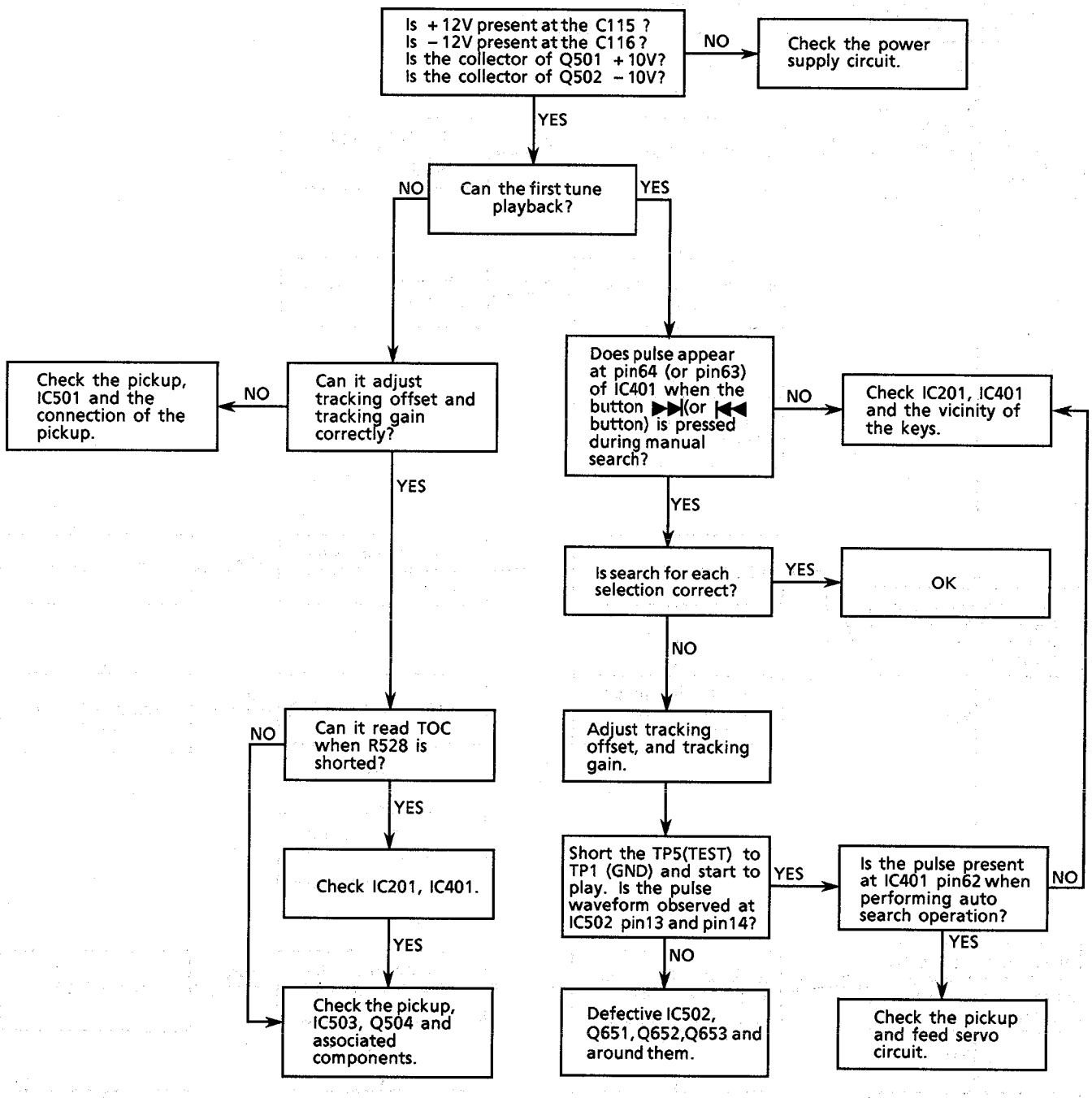

Are there +12V and −12V at C115(+) and C116(−)?
NO
Check the power supply circuit.
YES
NO
Does the pickup lens move up and down when the disc is loaded with play button?
NO
Is +10V applied to the collector of Q554, and is −10V applied to the collector of Q555?
YES
YES
Is the waveform as shown below present at emitter of Q554 at 2sec. intervals when the disc is loaded with play button
It continues approx. 6sec.
0.4V
2S
NO
Is the waveform as shown below present at pin68 of IC401 for approx. 8sec. when the disc is loaded with play button?
GND
0.5V
2S
0.2S
NO
IC401 is faulty.
See Feed servo circuit section.
YES
YES
Check the pickup and connections.
Is the waveform as shown below present at the emitter of Q553 when the disc is loaded with play button?
It continues approx. 6sec.
GND
1.8V
2S
NO
Defective Q552, Q553 and around them.
YES
IC851, Q554 and Q555 are faulty.
Short the R572 and load a disc.
Is the waveform as shown below present at pin2 of IC501 immediately after loading a disc?
0V
Approx. ±2V
5 ms
NO
Check the pickup, IC501 and the connections from the pickup.
YES
Remove the shorted R572 and load a disc.
Is the waveform as shown in the figure Ⓐ below present at pin1 of IC502?
NO
IC502 defective.
YES
Check IC401, IC851, Q554 and Q555.

Ⓐ Focus zero cross pulse.
The play starts after getting the focus zero cross pulse.
The width of the pulse is approx. 1msec.

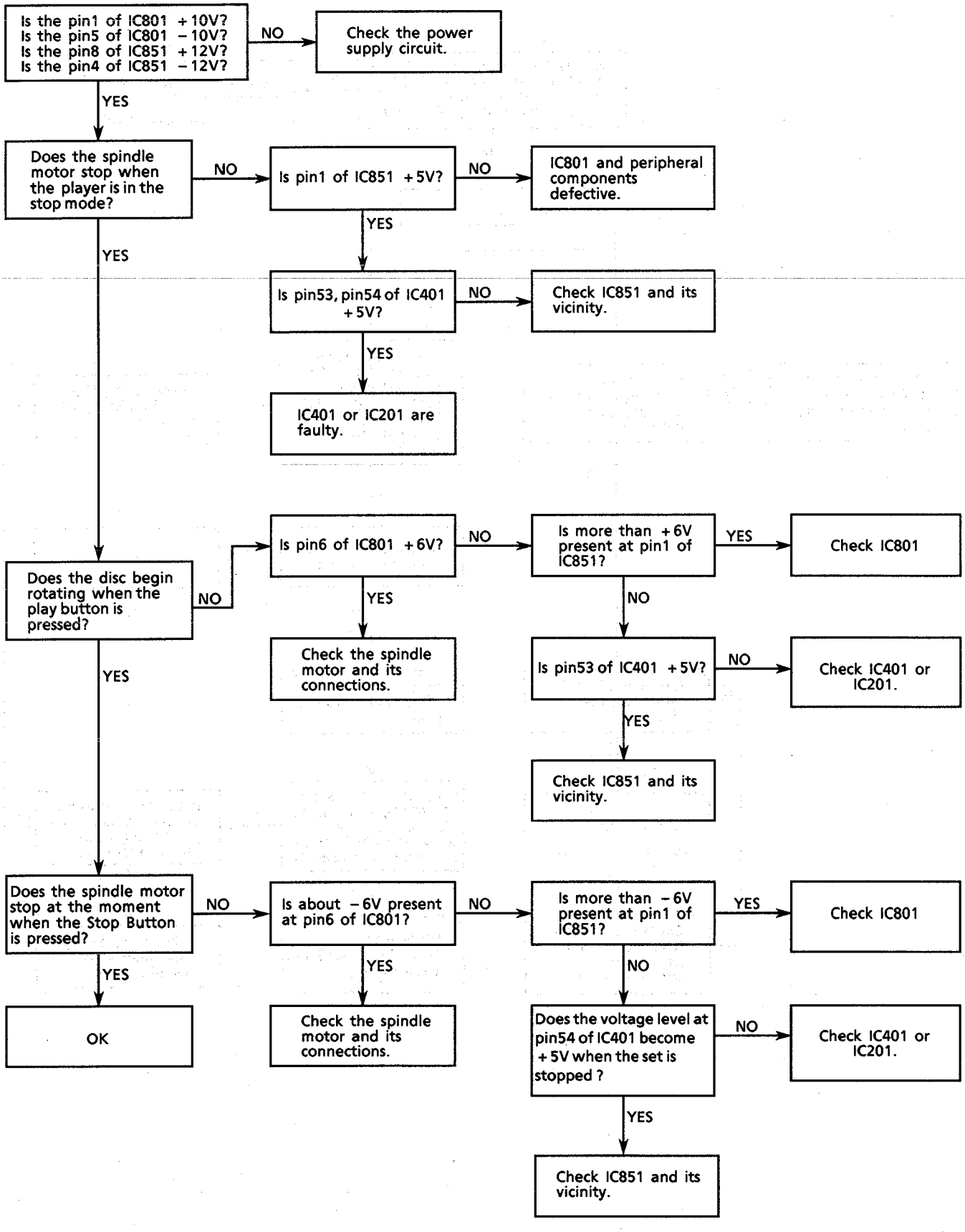
IC502 Pin1



Tracking servo circuit section


Is +12V present at the C115 ?
Is −12V present at the C116 ?
Is the collector of Q501 +10V?
Is the collector of Q502 −10V?
NO
Check the power supply circuit.
YES
NO
Can the first tune playback?
YES
Check the pickup, IC501 and the connection of the pickup.
NO
Can it adjust tracking offset and tracking gain correctly?
YES
Does pulse appear at pin64 (or pin63) of IC401 when the button ▶▶|(or |◀◀ button) is pressed during manual search?
NO
Check IC201, IC401 and the vicinity of the keys.
YES
Is search for each selection correct?
YES
OK
NO
NO
Can it read TOC when R528 is shorted?
YES
Check IC201, IC401.
YES
Check the pickup, IC503, Q504 and associated components.
Adjust tracking offset, and tracking gain.
Short the TP5(TEST) to TP1 (GND) and start to play. Is the pulse waveform observed at IC502 pin13 and pin14?
YES
Is the pulse present at IC401 pin62 when performing auto search operation?
NO
YES
Check the pickup and feed servo circuit.
NO
Defective IC502, Q651, Q652, Q653 and around them.

Spindle servo circuit section


Is the pin1 of IC801 +10V?
Is the pin5 of IC801 −10V?
Is the pin8 of IC851 +12V?
Is the pin4 of IC851 −12V?
NO
Check the power supply circuit.
YES
Does the spindle motor stop when the player is in the stop mode?
NO
Is pin1 of IC851 +5V?
NO
IC801 and peripheral components defective.
YES
YES
Is pin53, pin54 of IC401 +5V?
NO
Check IC851 and its vicinity.
YES
IC401 or IC201 are faulty.
Does the disc begin rotating when the play button is pressed?
NO
Is pin6 of IC801 +6V?
NO
Is more than +6V present at pin1 of IC851?
YES
Check IC801
YES
NO
Check the spindle motor and its connections.
Is pin53 of IC401 +5V?
NO
Check IC401 or IC201.
YES
Check IC851 and its vicinity.
YES
Does the spindle motor stop at the moment when the Stop Button is pressed?
NO
Is about −6V present at pin6 of IC801?
NO
Is more than −6V present at pin1 of IC851?
YES
Check IC801
YES
NO
YES
OK
Check the spindle motor and its connections.
Does the voltage level at pin54 of IC401 become +5V when the set is stopped ?
NO
Check IC401 or IC201.
YES
Check IC851 and its vicinity.

MEMO

MEMO

MEMO

XL-M306BK
XL-M307TN

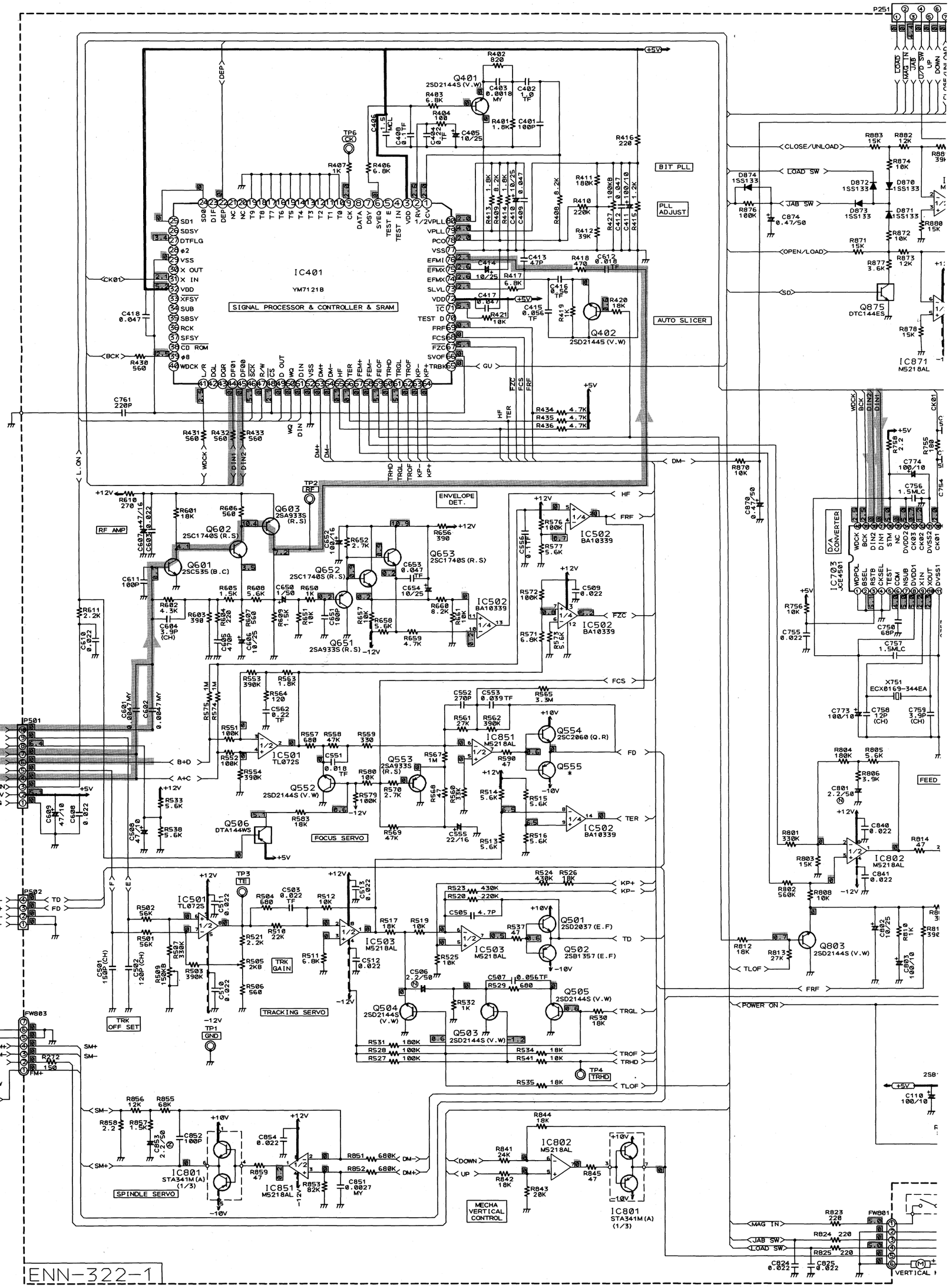
JVC
VICTOR COMPANY OF JAPAN, LIMITED
AUDIO PRODUCTS DIVISION, YAMATO PLANT, 1644, SHIMOTSURUMA, YAMATO-SHI, KANAGAWA-KEN, 242, JAPAN

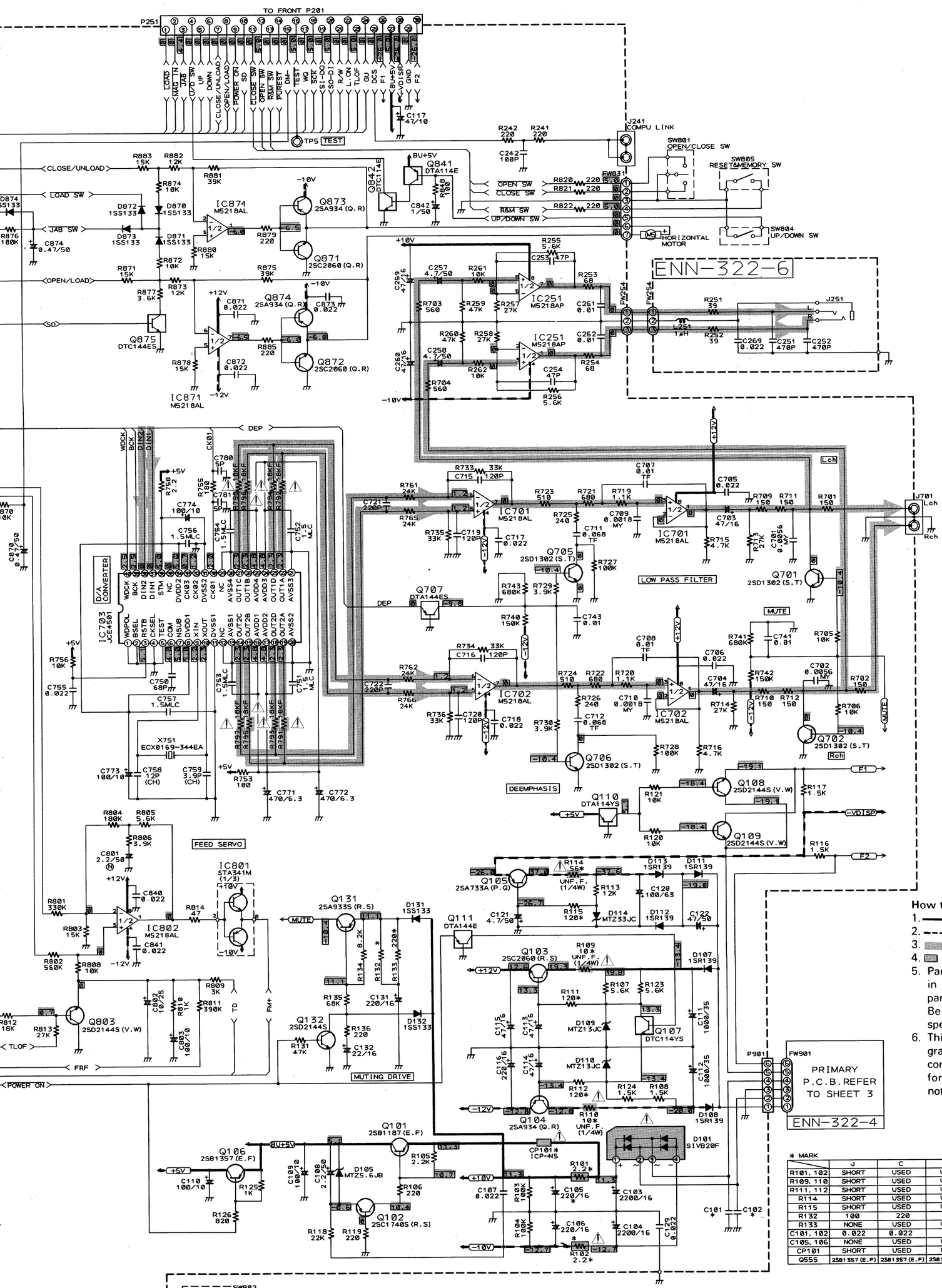
(No.20322)

Printed i
9202[N

SCHEMATIC DIAGRAM

■ CD Section





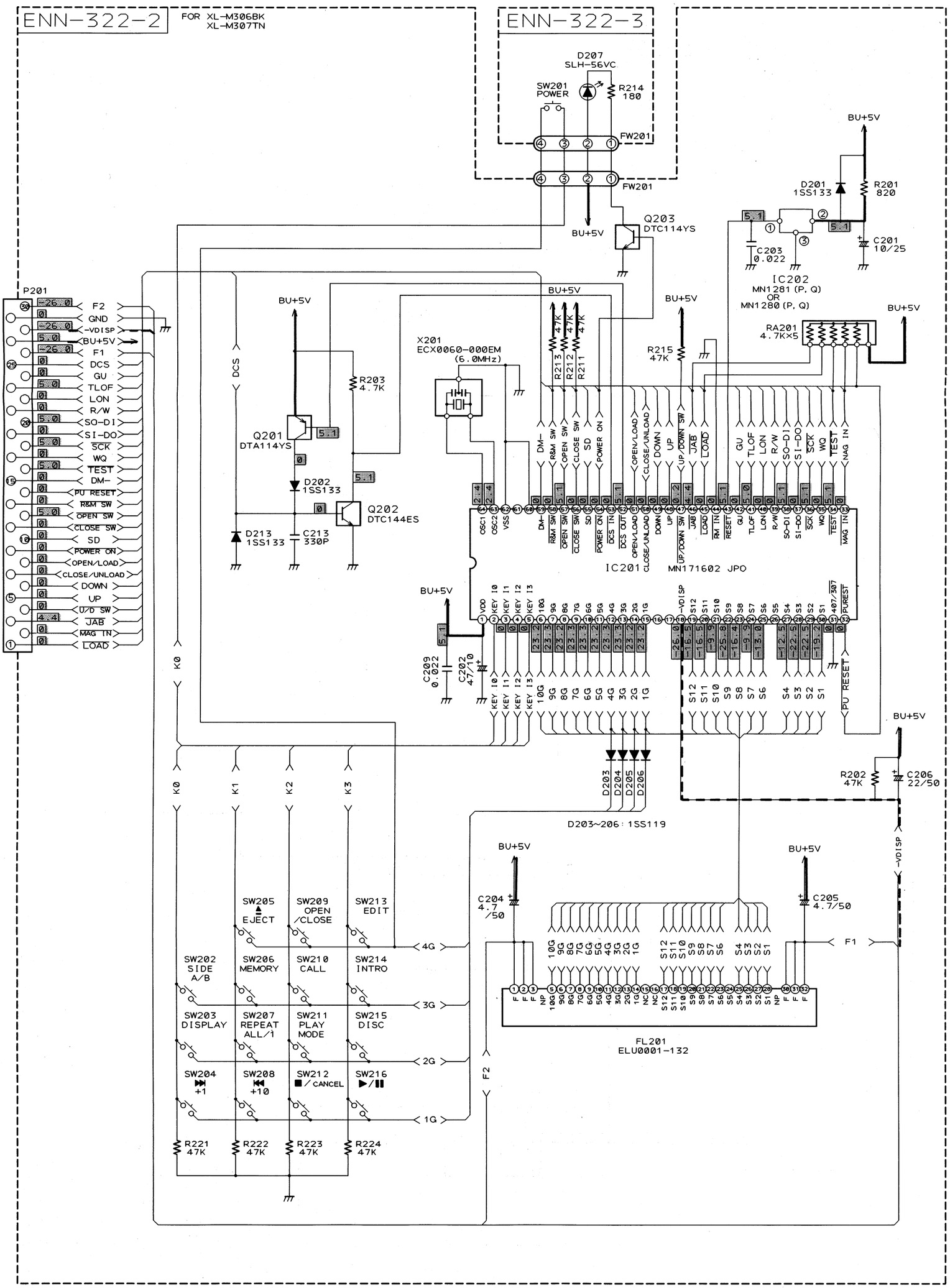
How to Use Schematic Diagrams

1. ——— indicates the +B line.
2. - - - - indicates the −B line.
3. ▒▒▒ indicates signal path.
4. ▭ indicates voltage value.
5. Parts marked with ⚠ and those in the shaded area ▒▒▒ are parts for safety.
   Be sure to use one with the specified part number.
6. This is the standard circuit diagram. The circuits and circuit constants are subject to change for improvement without notice.

* MARK

	J	C	U	OTHER AREAS
R101, 102	SHORT	USED	USED	USED
R109, 110	SHORT	USED	USED	USED
R111, 112	SHORT	USED	USED	USED
R114	SHORT	USED	USED	USED
R115	SHORT	USED	USED	USED
R132	100	220	220	220
R133	NONE	USED	USED	USED
C101, 102	0.022	0.022	0.1	0.1
C105, 106	NONE	USED	USED	USED
CP101	SHORT	USED	USED	USED
Q555	2SB1357 (E.F)	2SB1357 (E.F)	2SB1187 (E.F)	2SB1357 (E.F)

■ Front Section



5V

R201
820

C201
10/25

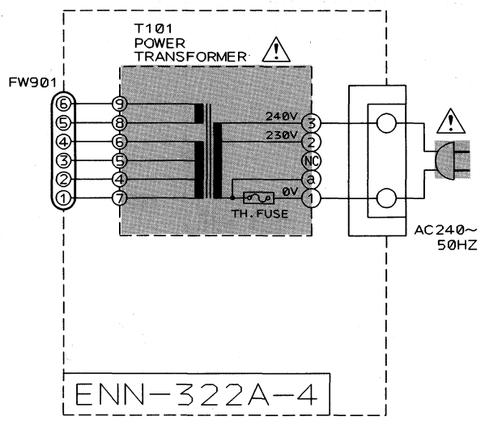
BU+5V

BU+5V

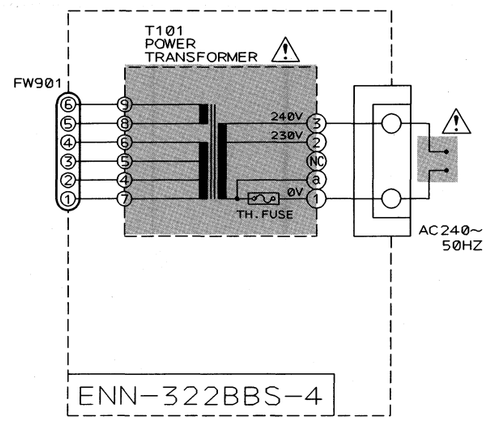
C206
22/50

-VDISP

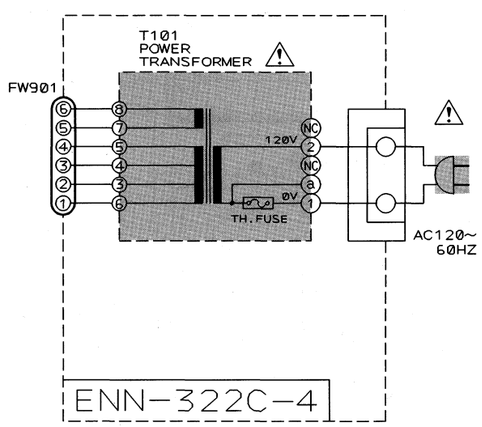
A (FOR AUSTRALIA)



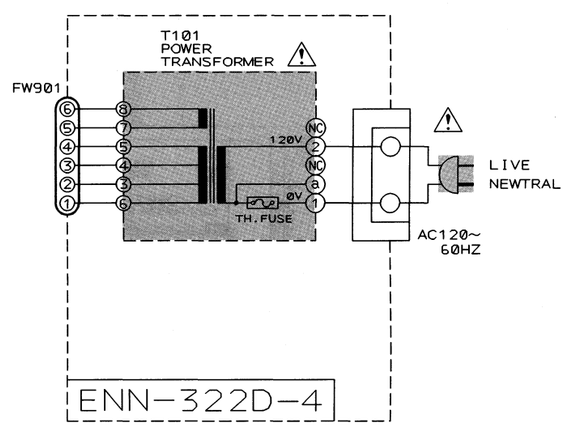
BS (FOR U.K.)



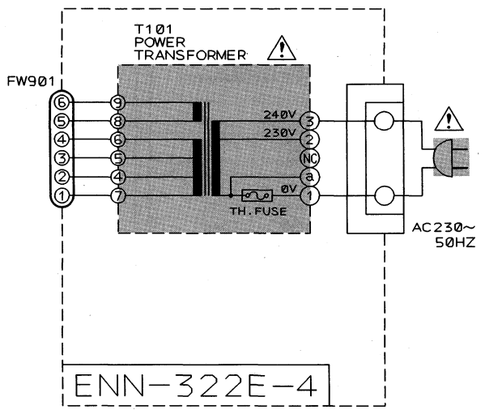
C (FOR CANADA)



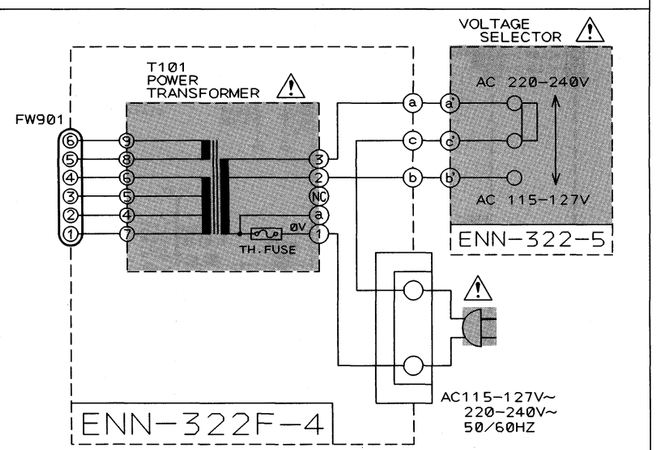
J (FOR U.S.A.)

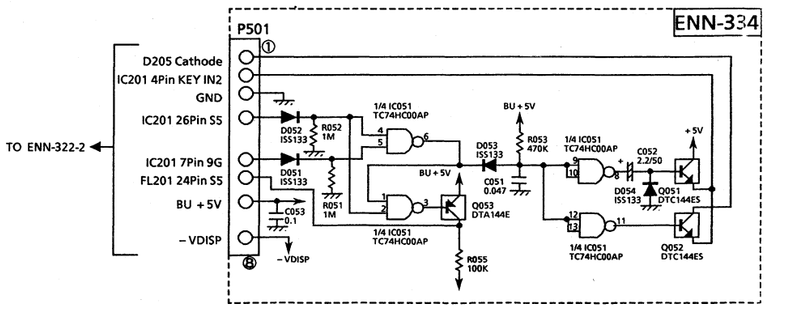


EN (FOR SCANDINAVIA)
EF (FOR CONTINENTAL EUROPE)
G (FOR GERMANY)

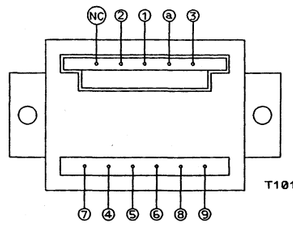


U (FOR OTHER AREAS)

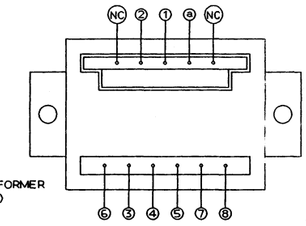




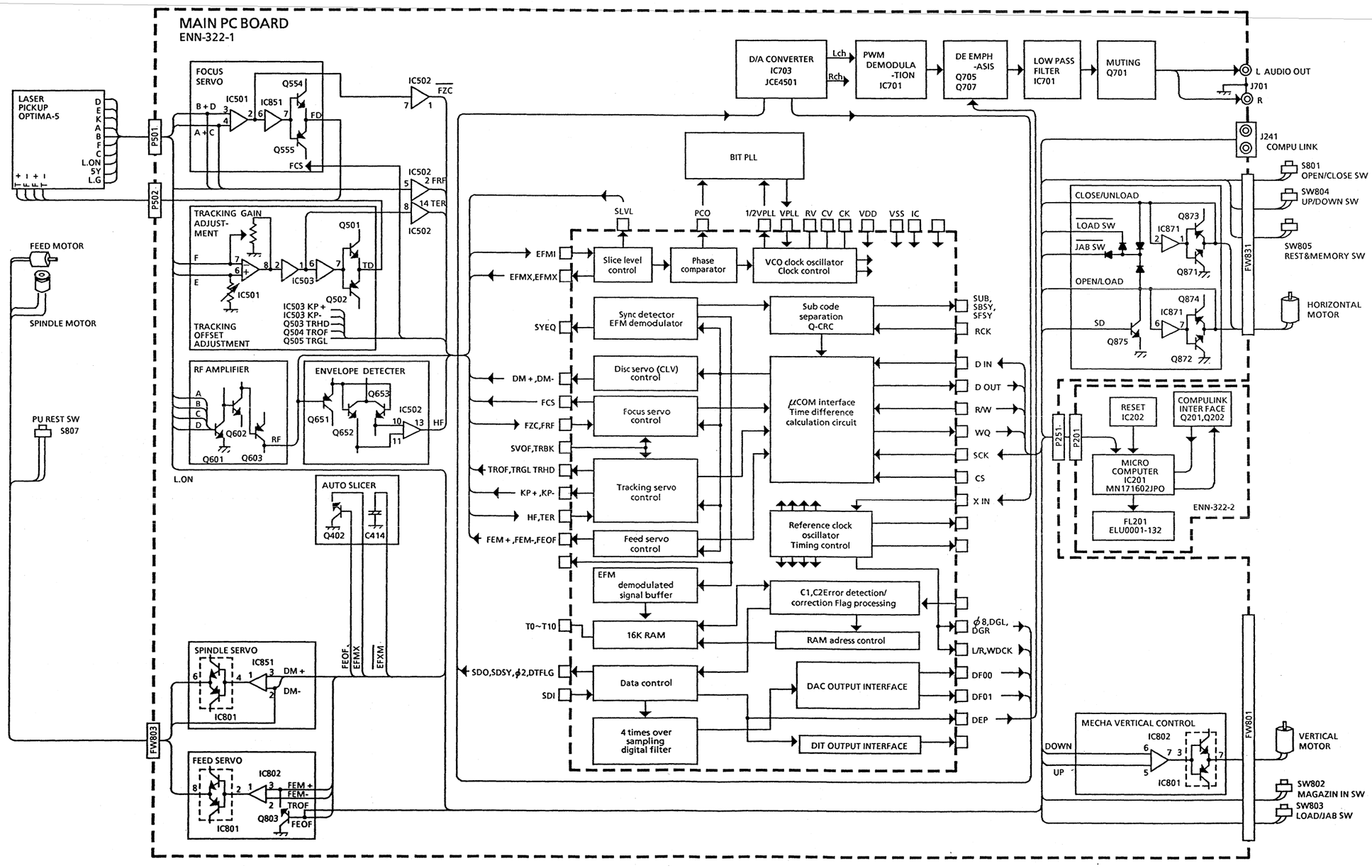
A, BS, E, U, G



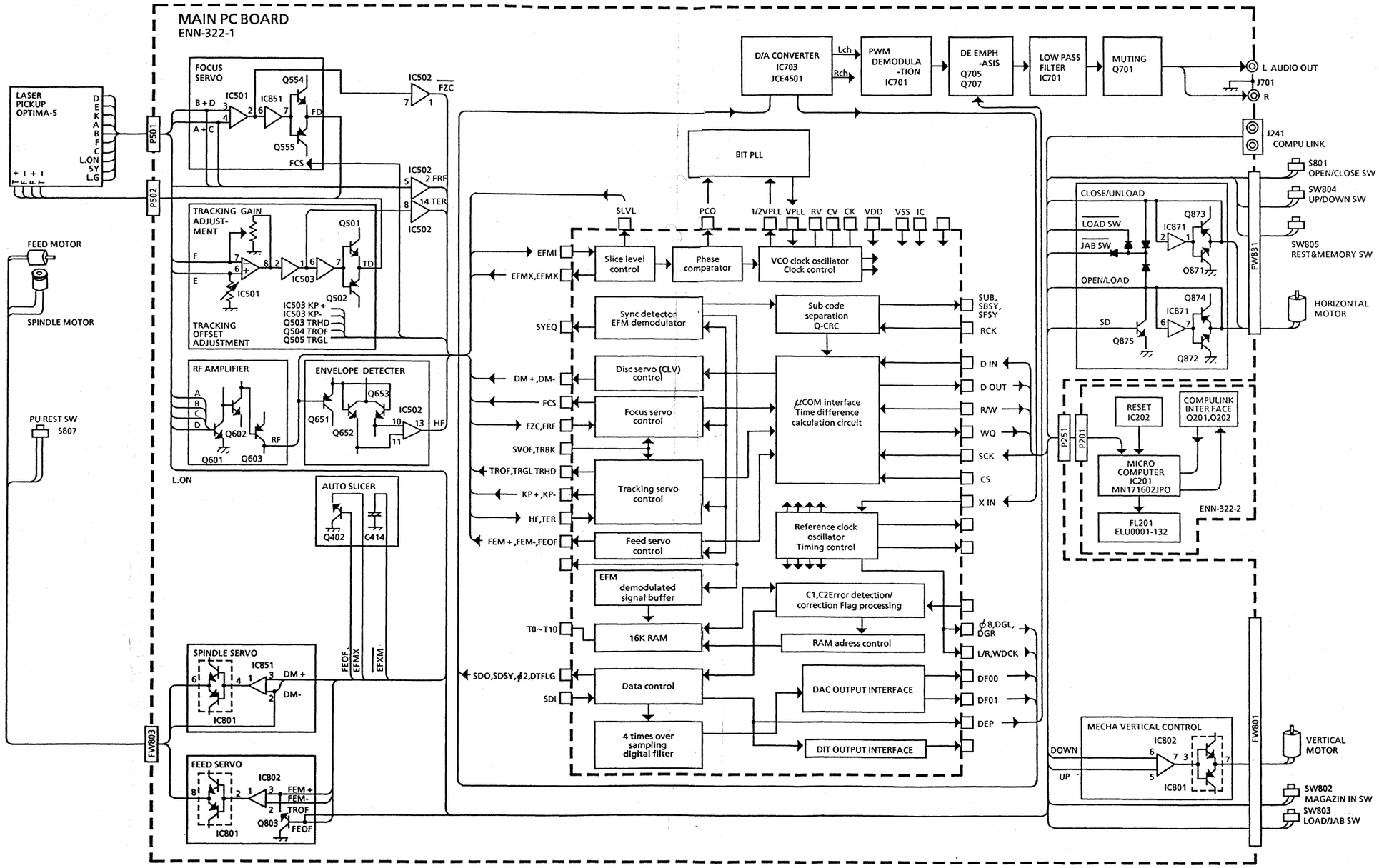
C, J



Block Diagrams

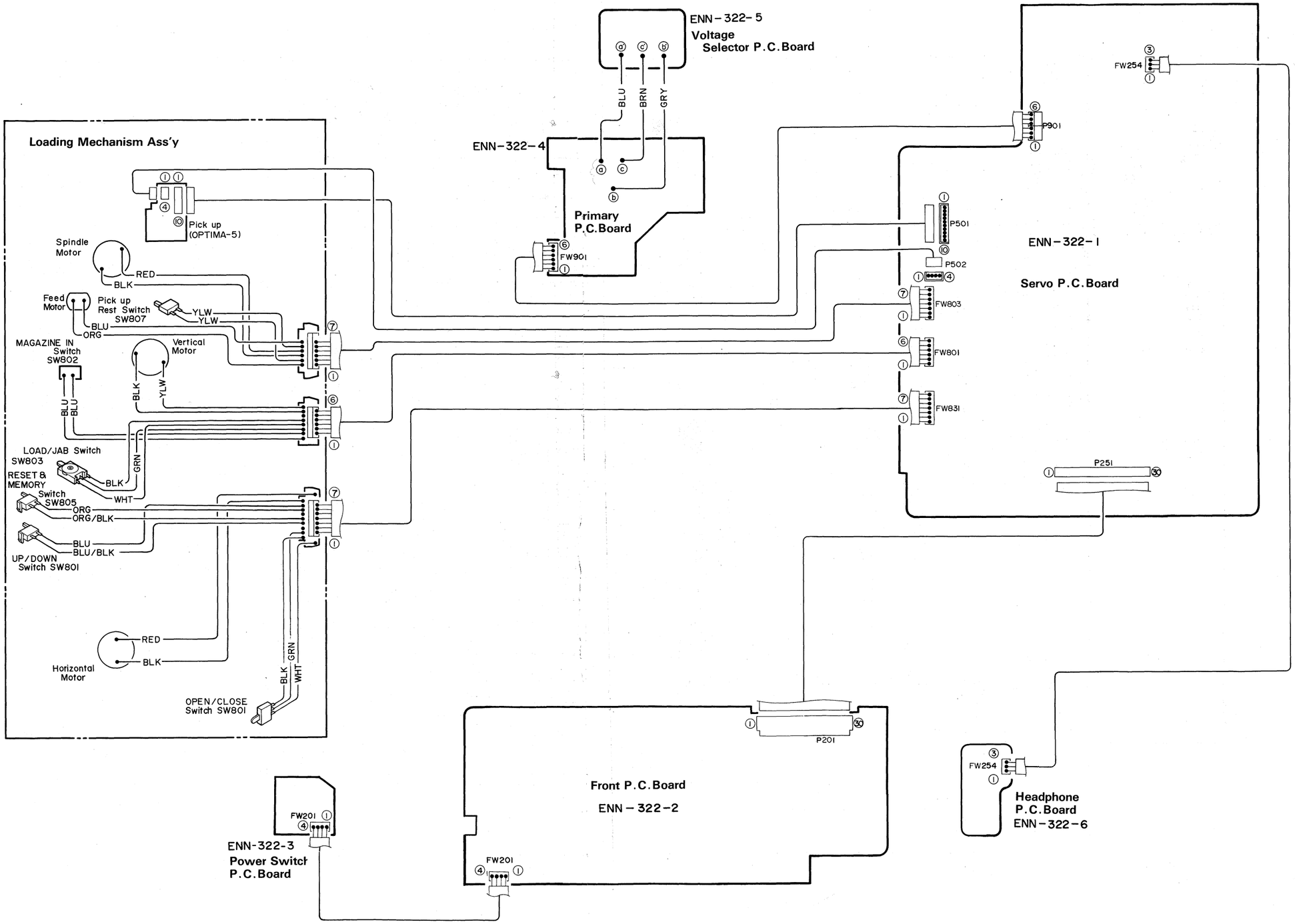


Block Diagrams



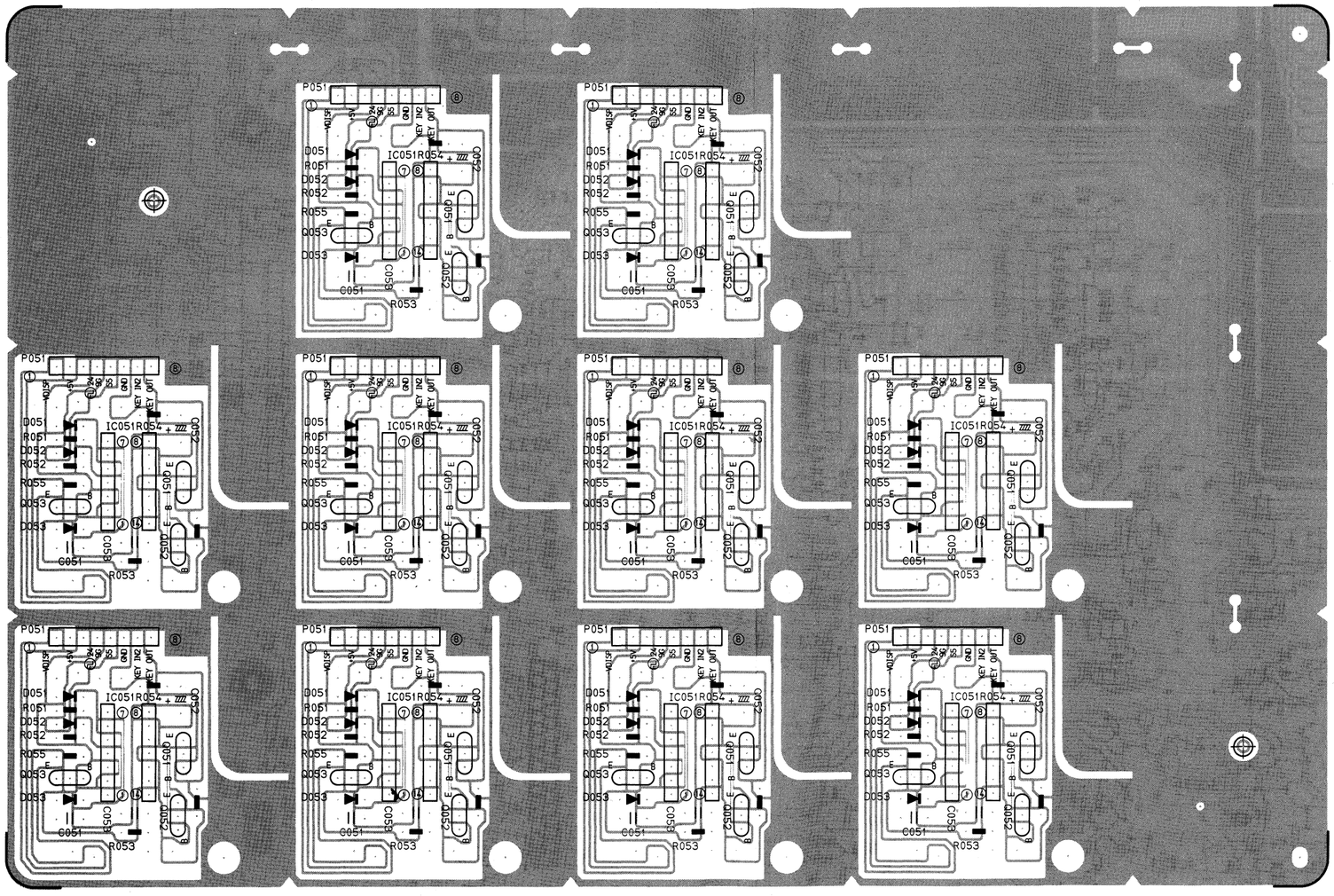
XL-M306BK
XL-M307TN

Connection Diagrams



(No.20322)

■ Sub P.C.Board (ENN-334)

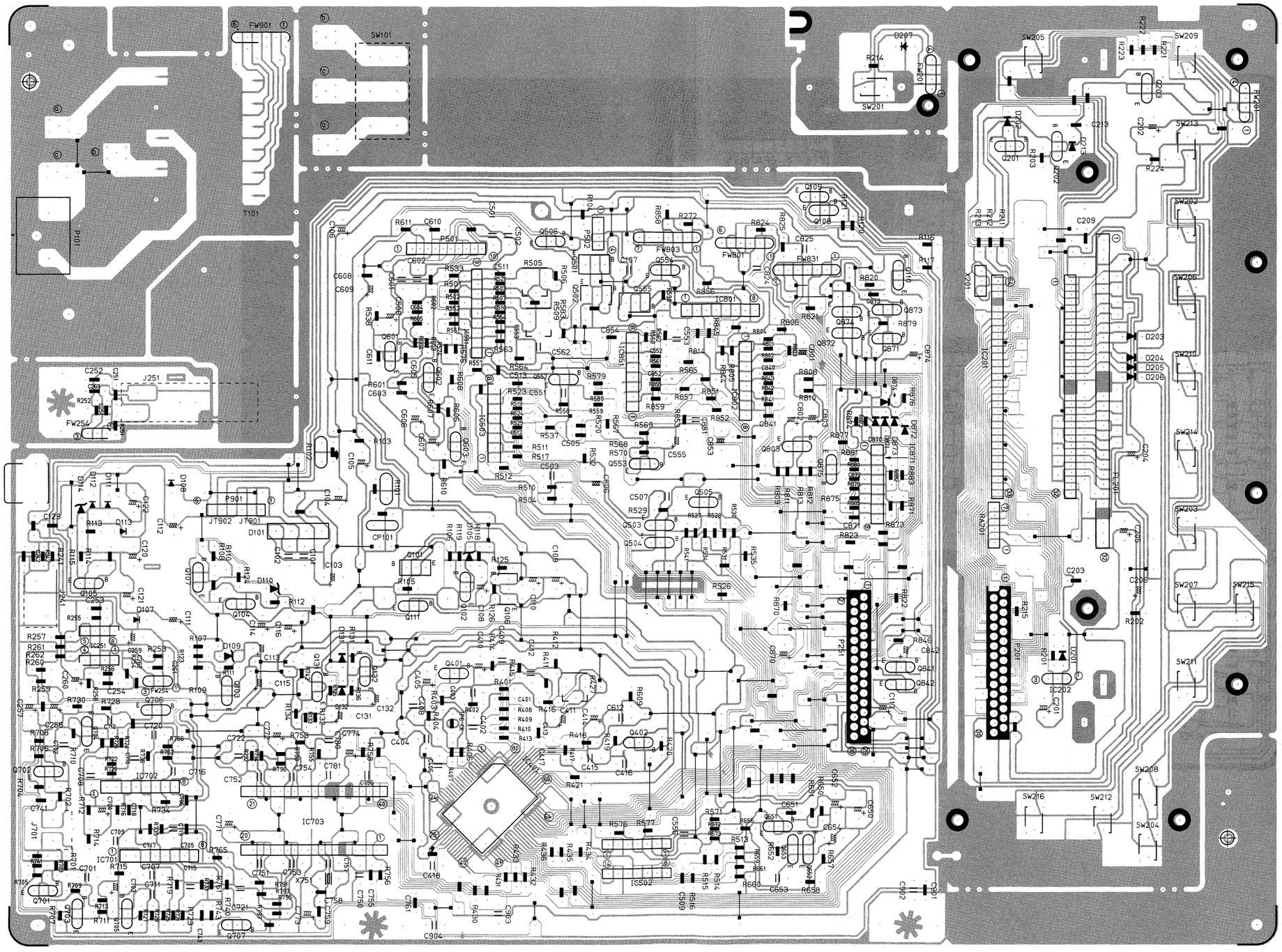


(No.20323)

(No.20323)

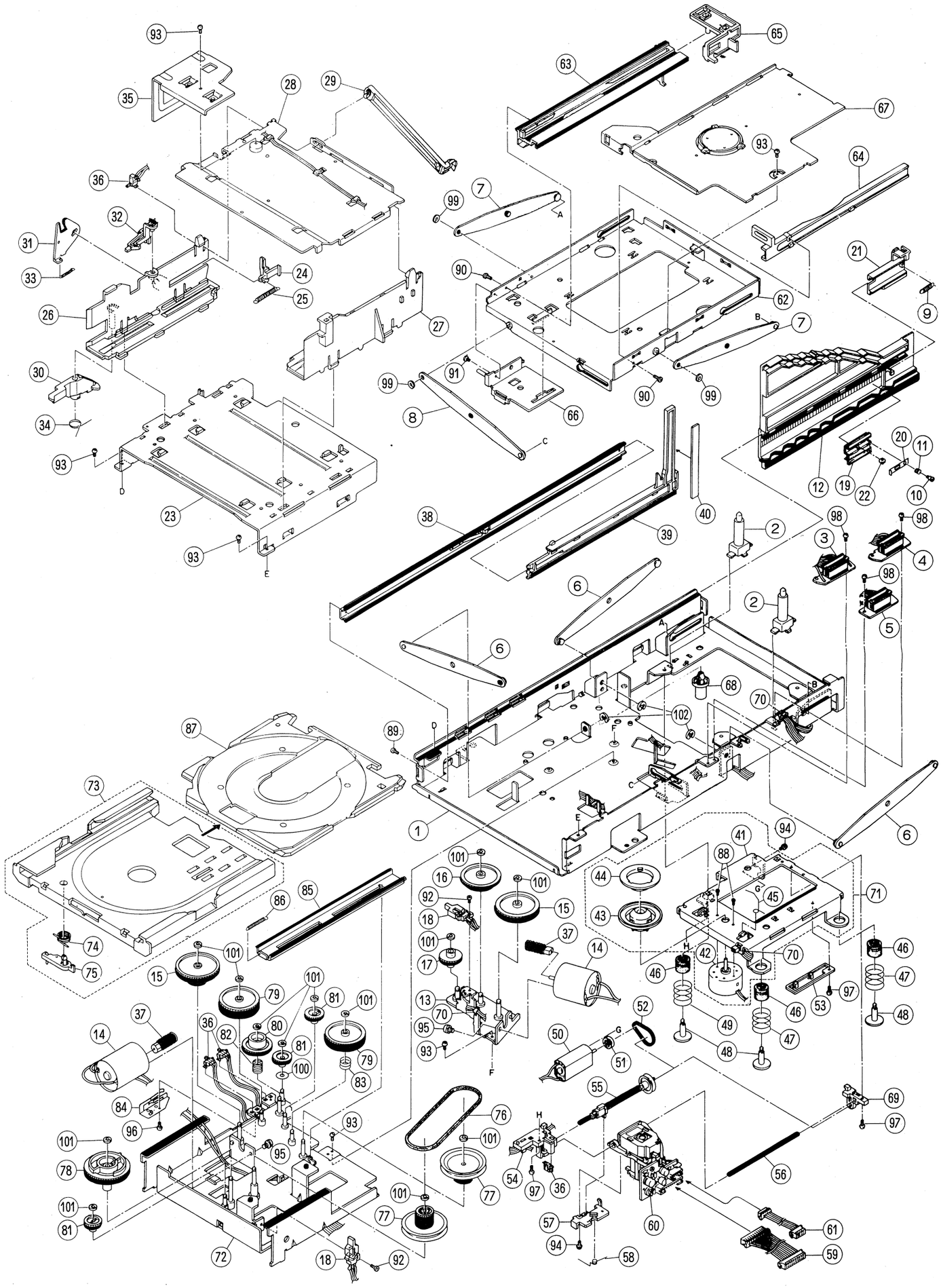
Printed Circuit Board

■ Main & Front P.C.Board (ENN-322)



EMW10219-002
ENN-322

Exploded View of Assemblies and Application points for Grease



G-425A

G-474C

G-331

PARTS LIST

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Printed Circuit Board Ass'y and Parts List 2-10
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Accessories List 2-15
Packing Materials and Part Numbers 2-16

General Exploded View and Parts List

■ Parts List

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	E102412-016	Front Panel Ass'y	1		
	2	E72968-001	JVC Mark	1		
	3	SBSG3006M	Screw	8		
	4	SDSF2608Z	Screw	11		
	5	EWR130K-16TT	Flat Cable	1		
	6	E406564-001	Headphone Holder	1		
	7	SBSG3008Z	Screw	1		
	8	E25834-006	Metal Cover	1		
	9	E406308-001	Special Screw	4		
	10	E102384-009	Chassis Base	1		
	11	E305771-004	Stay Bracket	1	Right	
	12	SBSG3006Z	Screw	4		
	13	E306618-001	Stay Bracket	1	Center	
	14	E307882-001	Stay Bracket	1	Left	
	15	E406472-004	Foot Ass'y	4		
	16	SBST3008Z	Screw	4	for Foot	
	17	E307280-004	Fitting	1		
	18	————	CD Changer Mechanism Unit Ass'y	1	See page 2-5	
	19	E406507-001	Caution Label	1		
	20	GBSG3008CC	Screw	4		
	21	E307273-001	Mecha Bracket	1		
	22	SBST3004Z	Screw	3		
⚠	23	ETP1010-50EA	Power Transformer	1		
	24	E65389-004	Special Screw	2		
	25	E306232-001	Fastener	1		
	26	E407151-001	Spacer	1		
	27	E407155-001	Fastener	1		
	28	SBSG3014Z	Screw	1		
	29	E207132-012	Rear Panel	1		
	—	E307853-031F	Rating Label	1		G
		E307853-056	Rating Label	1		A
	30	E73273-006	Special Screw	8		
	—	E61029-005	Number Label	1		EN, EF
	—	E70027-001	Approval Label	1		EN
	—	QZL1031-101	SEV Label	1		EF
	—	E70419-002F	F. Mark Label	1		G
	—	E70891-001	Class 1 Label	1		

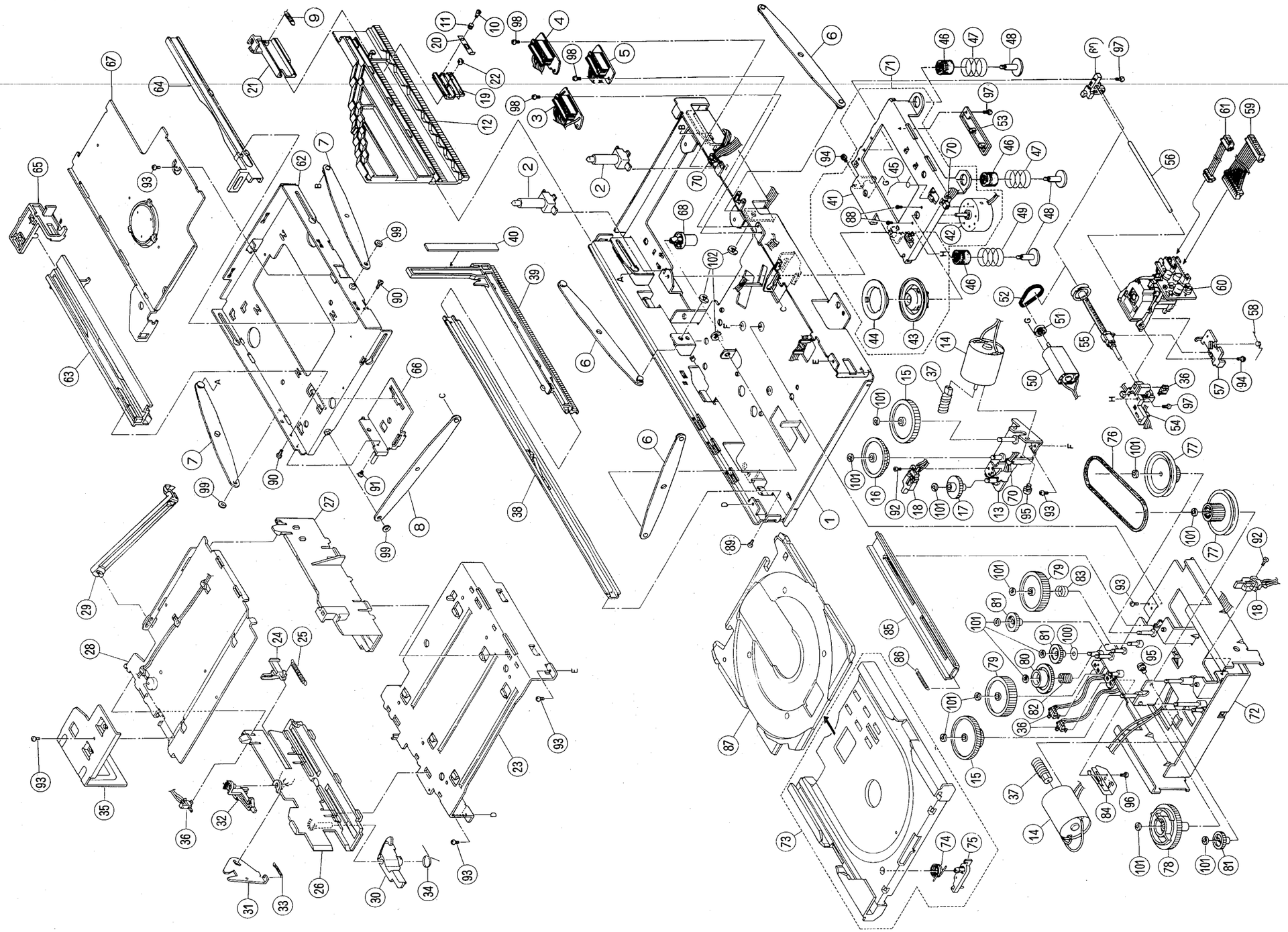
⚠ Safety Parts

The Marks for Designated Areas

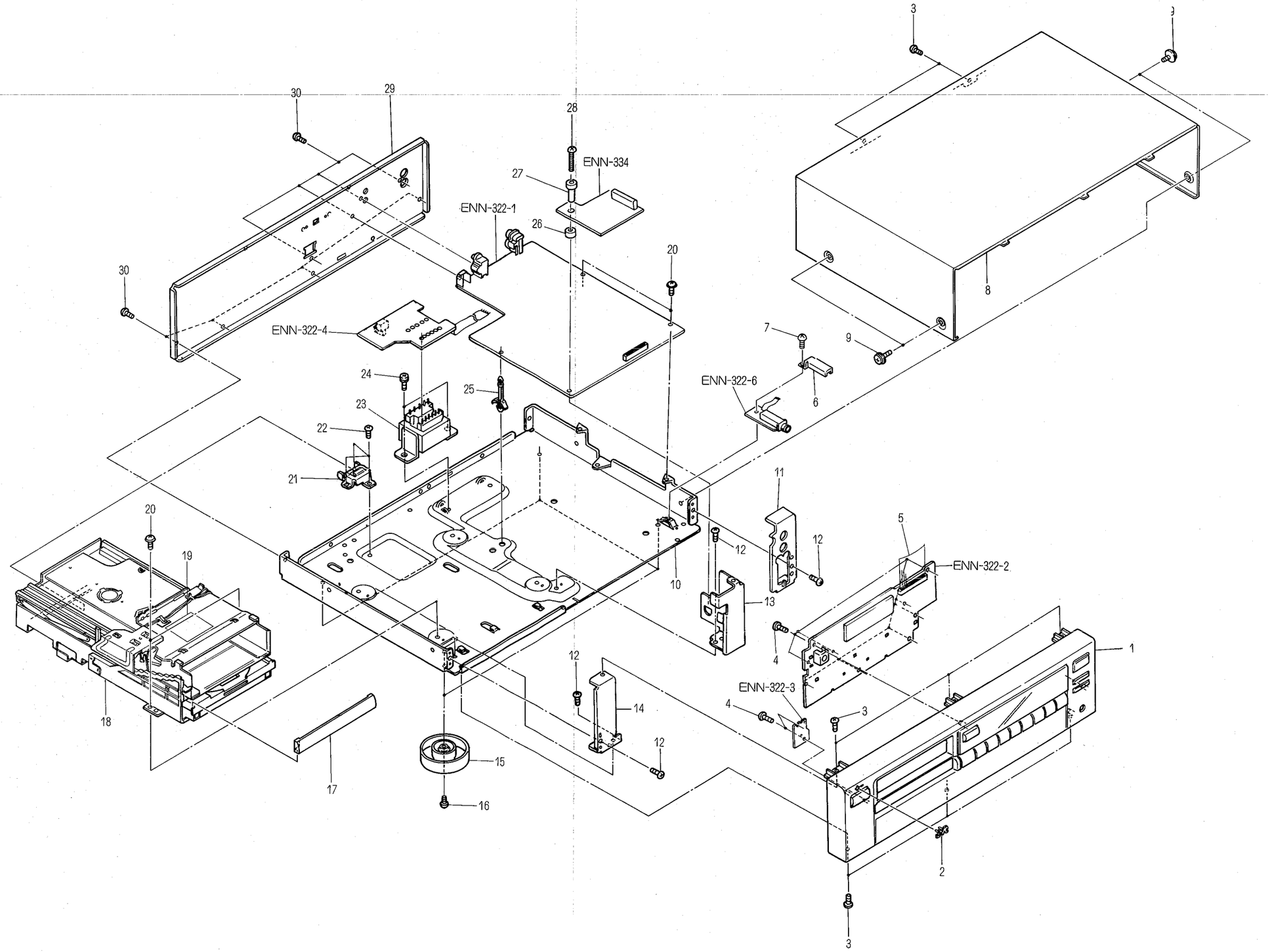
A·····Australia
EN·····Scandinavia
EF·····Continental Europe
G·····Germany

No mark indicates all areas.

CD Changer Ass'y and Parts List



■ Exploded View



■ Parts List (CD Changer Ass'y)

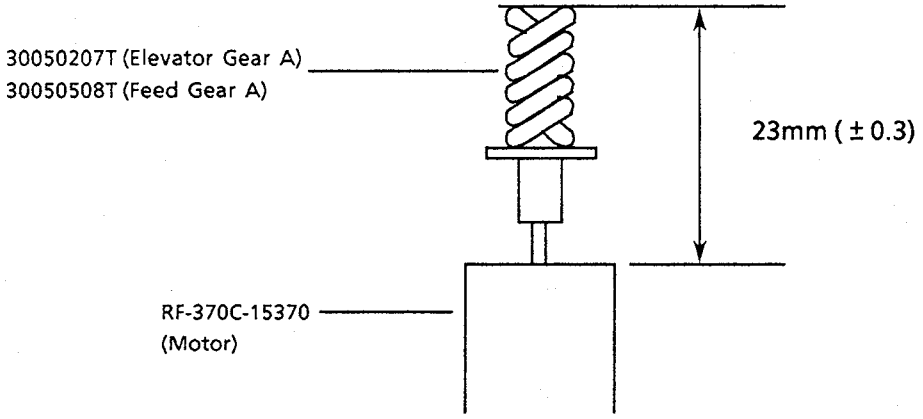
Item	Part Number	Part Name	Q'ty	Description	Areas
1	30100101T	Chassis Base	1		
2	30050115T	Guide Boss	2		
3	300501302T	Connector PC Board A Ass'y	1		
4	301001301T	Connector PC Board D Ass'y	1		
5	300501304T	Connector PC Board P Ass'y	1		
6	301002502T	Elevator Arm A Ass'y	3		
7	301002503T	Elevator Side Arm B Ass'y	2		
8	301002504T	Elevator Front Arm A Ass'y	1		
9	30100221T	Cam Lever Spring	1		
10	30100222T	Collar Screw	1		
11	30100223T	Cam Spring	1		
12	30100202T	Lift Cam	1		
13	301002501T	Elevator Motor Bracket Ass'y	1		
14	RF-370C-15370	Loading Motor	2		
15	30100210T	Elevator Gear B	2		
16	30100212T	Elevator Gear C	1		
17	30100213T	Elevator Gear D	1		
18	640101167T	Leaf Switch	1		
19	30100204T	Cam Slider	1		
20	30100205T	Cam Spring Plate	1		
21	30100206T	Cam Lever	1		
22	30100207T	Cam Roller	1		
23	30100301T	Guide Base	1		
24	30100311T	Elevator Slide Lever	1		
25	30100312T	Elevator Slide Lever Spring	1		
26	301003703T	Magazine Guide	1	Left	
27	30050303T	Magazine Guide	1	Right	
28	30100305T	Guide Cover	1		
29	30050309T	Tray Stopper	1		
30	30100310T	Open Lever	1		
31	30100308T	Elevator Kick Lever	1		
32	30100307T	Lock Lever	1		
33	30100309T	Elevator Kick Lever Spring	1		
34	30100313T	Open Lever Spring	1		
35	301003706T	Cam Stabilizer	1		
36	64020403T	Push Switch	4		
37	30050508T	Feed Gear A	2		
38	301005501T	Feed Rail Ass'y	1		
39	30100504T	Hook Slide Gear	1		
40	30100505T	Slide Gear Plate	1		
41	30050738T	Turn Table Base	1		
42	60020705T	Spindle Motor	1		
43	30050729T	Turn Table	1		
44	30050713T	Turn Table Plate	1		
45	30050742T	Controller Spring	1		
46	30050721T	Floating Rubber	3		
47	30050715T	Floating Spring (B)	2		
48	30050743T	Floating Screw	3		
49	30050740T	Floating Spring	1		
50	60021102T	Feed Motor	1		
51	30050709T	Motor Pulley	1		
52	30050714T	Feed Motor Belt	1		
53	30050737T	Pick up Support	1		
54	30050724T	Shaft Holder A	1		
55	300507303T	Feed Screw Ass'y	1		
56	30050728T	Pick up Shaft	1		
57	30050735T	Feed Nut Support	1		
58	30050739T	Feed Nut Spring	1		
59	EWS26A-B921	Wire	1	10Pin	
60	OPTIMA-5S	Pick up	1		

Item	Part Number	Part Name	Q'ty	Description	Areas
61	EWS264-B924	Wire	1	4Pin	
※62	301008503T	Rail Base Ass'y	1		
63	30100802T	Rail	1	Left	
64	30100803T	Rail	1	Right	
65	30100804T	Hook Lever	1		
66	301008502T	LP Bracket Ass'y	1		
67	301008301T	Magazine Holder Ass'y	1		
68	30050114T	Chassis Support	1		
69	30050725T	Shaft Holder B	1		
70	12030105T	Tie Band	4		
71	300507305T	Turn Table Base Ass'y	1		
※72	301004502T	Plus Base Ass'y	1		
73	301004301T	Plus Rail Base Ass'y	1		
74	30100415T	Stopper Spring	1		
75	30050416T	Stopper	1		
76	30100411T	Plus Belt	1		
77	30100403T	Plus Gear A	2		
78	30100404T	Plus Gear B	1		
79	30100515T	Feed Gear C	2		
80	30100506T	Feed Gear D	1		
81	30100516T	Feed Gear E	3		
82	30100413T	Feed Gear D Spring	1		
83	30100412T	Feed Gear E Spring	1		
84	30100414T	Switch Actuator	1		
85	30100409T	Plus Slide Rail	1		
※86	30100410T	Plus Slide Rail Spring	1		
87	E26609-001	Plus 1 Tray	1		
88	SPSK1722M	Screw	2		
89	9C0420253T	Screw	1		
90	9C0820601T	Screw	2		
91	9C1220301T	Screw	1		
92	9C0420403T	Screw	2		
93	9P0420031T	Screw	6		
94	9P0220031T	Screw	2		
95	9P0230041T	Screw	2		
96	9P1120032T	Screw	1		
97	9P0420051T	Screw	3		
98	9P0420041T	Screw	3		
※99	9W0640040T	Washer	3		
※100	9W0113080T	Washer	2		
※101	9W0250110T	Washer	14		
102	REE3000	E. Ring	3		

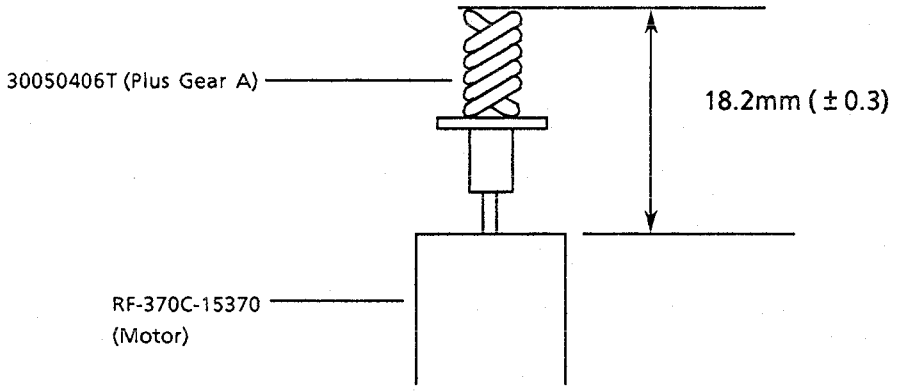
※ Replace the No.72 (Plus Base Ass'y) or No.62 (Rail Base Ass'y) at the same time when replacing the No.62 or No.72.
In this time, delete the No.86 (Plus Slide Rail Spring) and use the No.101 (Washer) instead of the No.99 (Washer).
And also add the another No.101 (Washer) and 2pcs of No.100 (Washer).
~ Perform the above information since alphabetic D of changer mechanism unit assembly.

■ How to install the gears and pulley when servicing.

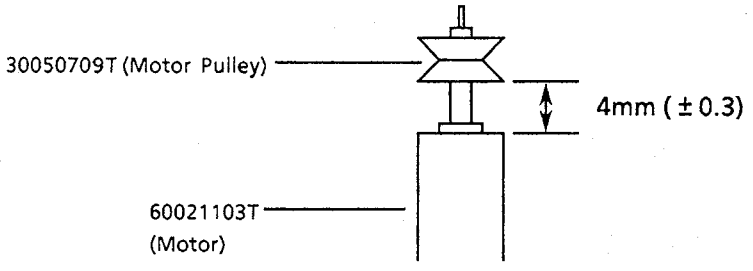
1. Elevator Motor, Loading Motor



2. Loading Motor for single tray



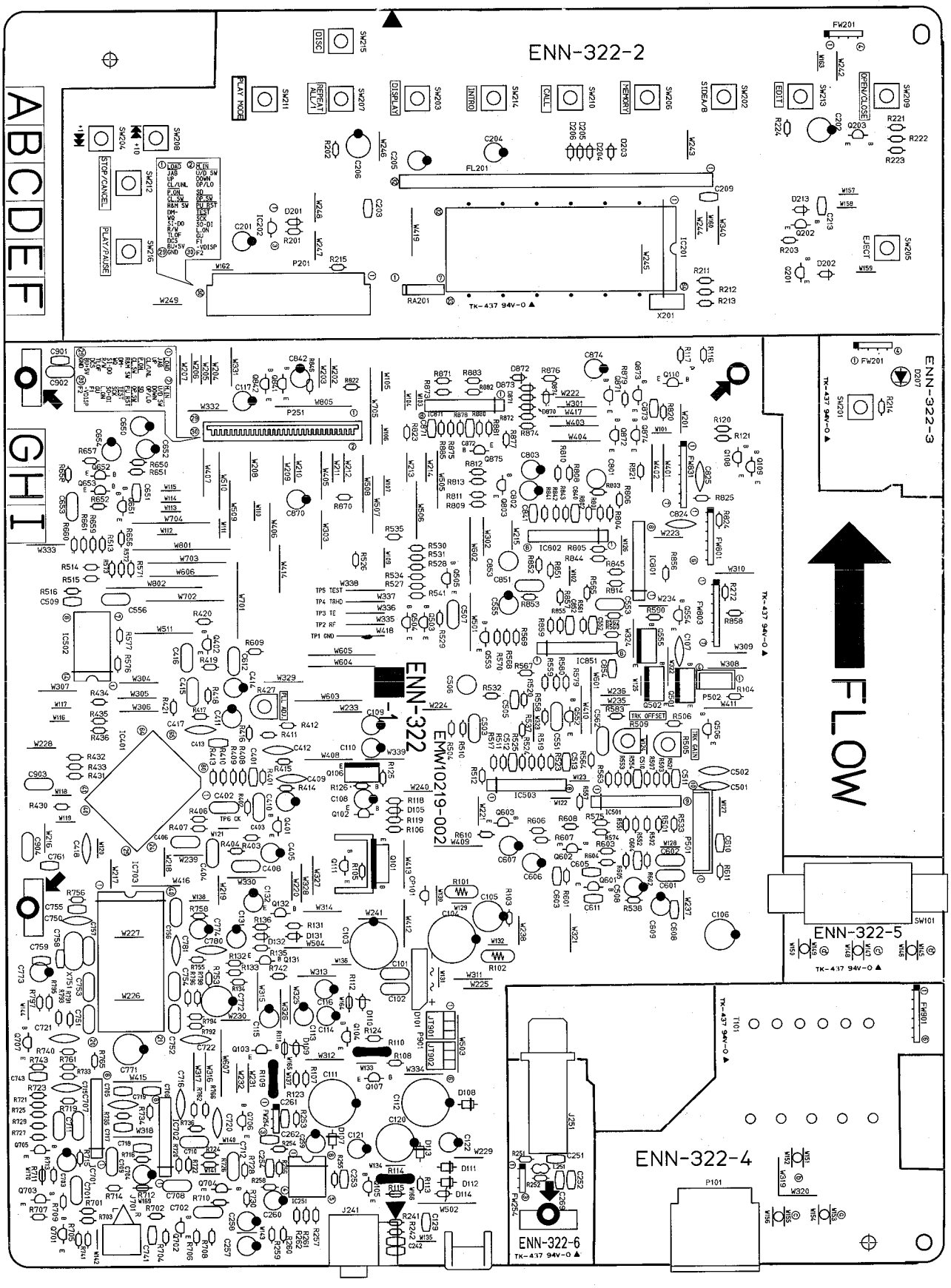
3. Feed Motor



Printed Circuit Board Ass'y and Parts List

■ENN-322☐ Front & Main PC Board Ass'y

Note : ENN-322 ☐ varies according to the areas employed. See note (1) when placing an order.



Note(1)

PC Board Ass'y	Designated Areas
ENN-322 [A]	Australia , Germany
ENN-322 [E]	Scandinavia Continental Europe

Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
	Q101	2SB1187(E,F)	SILICON	ROHM	
	Q102	2SC1740S(R,S)	SILICON	ROHM	
	Q103	2SC2060(Q,R)	SILICON	ROHM	
	Q104	2SA934(Q,R)	SILICON	ROHM	
	Q105	2SA733A(P,Q)	SILICON	NEC	
	Q106	2SB1357(E,F)	SILICON	ROHM	
	Q107	DTC114YS	SILICON	ROHM	
	Q108	2SD2144S(VW)	SILICON	ROHM	
	Q109	2SD2144S(VW)	SILICON	ROHM	
	Q110	DTA114YS	SILICON	ROHM	
	Q111	DTA144ES	SILICON	ROHM	
	Q131	2SA933S(R,S)	SILICON	ROHM	
	Q132	2SD2144S(VW)	SILICON	ROHM	
	Q201	DTA114YS	SILICON	ROHM	
	Q202	DTC144ES	SILICON	ROHM	
	Q203	DTC114YS	SILICON	ROHM	
	Q401	2SD2144S(VW)	SILICON	ROHM	
	Q402	2SD2144S(VW)	SILICON	ROHM	
	Q501	2SD2037(E,F)	SILICON	ROHM	
	Q502	2SB1357(E,F)	SILICON	ROHM	
	Q503	2SD2144S(VW)	SILICON	ROHM	
	Q504	2SD2144S(VW)	SILICON	ROHM	
	Q505	2SD2144S(VW)	SILICON	ROHM	
	Q506	DTA144WS	SILICON	ROHM	
	Q552	2SD2144S(VW)	SILICON	ROHM	
	Q553	2SA933S(R,S)	SILICON	ROHM	
	Q554	2SC2060(Q,R)	SILICON	ROHM	
	Q555	2SB1357(E,F)	SILICON	ROHM	
	Q601	2SC535(B,C)	SILICON	HITACHI	
	Q602	2SC1740S(R,S)	SILICON	ROHM	
	Q603	2SA933S(R,S)	SILICON	ROHM	
	Q651	2SA933S(R,S)	SILICON	ROHM	
	Q652	2SC1740S(R,S)	SILICON	ROHM	
	Q653	2SC1740S(R,S)	SILICON	ROHM	
	Q701	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q702	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q705	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q706	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q707	DTA144ES	SILICON	ROHM	
	Q803	2SD2144S(VW)	SILICON	ROHM	
	Q841	DTA114ES	SILICON	ROHM	
	Q842	DTC114ES	SILICON	ROHM	
	Q871	2SC2060(Q,R)	SILICON	ROHM	
	Q872	2SC2060(Q,R)	SILICON	ROHM	
	Q873	2SA934(Q,R)	SILICON	ROHM	
	Q874	2SA934(Q,R)	SILICON	ROHM	
	Q875	DTC144ES	SILICON	ROHM	

⚠ : SAFETY PARTS

I.C.s

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
	IC201	MN171602JPO	I.C.	MATSUSHITA	
	IC202	MN1281(P,Q)	I.C.	MATSUSHITA	
	IC251	M5218AP	I.C.	MITSUBISHI	
	IC401	YM7121B	I.C.	YAMAHA	
	IC501	TL072S	I.C.	DAINICHI	
	IC502	BA10339	I.C.	ROHM	
	IC503	M5218AL	I.C.	MITSUBISHI	
	IC701	M5218AL	I.C.	MITSUBISHI	
	IC702	M5218AL	I.C.	MITSUBISHI	
	IC703	JCE4501	I.C.	MATSUSHITA	
	IC801	STA341M(A)	I.C.	SANKEN	
	IC802	M5218AL	I.C.	MITSUBISHI	
	IC851	M5218AL	I.C.	MITSUBISHI	
	IC871	M5218AL	I.C.	MITSUBISHI	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
⚠	D101	S1VB20F	SILICON	SINDENGEN	
	D105	MTZ5.6JB	ZENER	ROHM	
	D107	1SR139-200	SILICON	ROHM	
	D108	1SR139-200	SILICON	ROHM	
	D109	MTZ13JC	ZENER	ROHM	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
	D110	MTZ13JC	ZENER	ROHM	
	D111	1SR139-200	SILICON	ROHM	
	D112	1SR139-200	SILICON	ROHM	
	D113	1SR139-200	SILICON	ROHM	
	D114	MTZ33JC	ZENER	ROHM	
	D131	1SS133	SILICON	ROHM	
	D132	1SS133	SILICON	ROHM	
	D201	1SS133	SILICON	ROHM	
	D202	1SS133	SILICON	ROHM	
	D203	1SS119	SILICON	HITACHI	
	D204	1SS119	SILICON	HITACHI	
	D205	1SS119	SILICON	HITACHI	
	D206	1SS119	SILICON	HITACHI	
	D207	SLR-56VC50F130	L.E.D.	ROHM	
	D213	1SS133	SILICON	ROHM	
	D870	1SS133	SILICON	ROHM	
	D871	1SS133	SILICON	ROHM	
	D872	1SS133	SILICON	ROHM	
	D873	1SS133	SILICON	ROHM	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C101	QFV81HJ-104	0.1MF	50V	T.FILM	
	C102	QFV81HJ-104	0.1MF	50V	T.FILM	
	C103	QETB1CM-228	2200MF	16V	ELECTRO	
	C104	QETB1CM-228	2200MF	16V	ELECTRO	
	C105	QETB1CM-227	220MF	16V	ELECTRO	
	C106	QETB1CM-227	220MF	16V	ELECTRO	
	C107	QCF21HP-223	0.022MF	50V	CERAMIC	
	C108	QETB1HM-225	2.2MF	50V	ELECTRO	
	C109	QETB1AM-107	100MF	10V	ELECTRO	
	C110	QETB1AM-107	100MF	10V	ELECTRO	
	C111	QETB1VM-108	1000MF	35V	ELECTRO	
	C112	QETB1VM-108	1000MF	35V	ELECTRO	
	C113	QETB1CM-476	47MF	16V	ELECTRO	
	C114	QETB1CM-476	47MF	16V	ELECTRO	
	C115	QETB1CM-476	47MF	16V	ELECTRO	
	C116	QETB1CM-227	220MF	16V	ELECTRO	
	C117	QETB1AM-476	47MF	10V	ELECTRO	
	C120	QETB1JM-107	100MF	63V	ELECTRO	
	C121	QETB1HM-475	4.7MF	50V	ELECTRO	
	C122	QETB1HM-476	47MF	50V	ELECTRO	
	C129	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C131	QETB1CM-227	220MF	16V	ELECTRO	
	C132	QETB1CM-226	22MF	16V	ELECTRO	
	C201	QER51EM-106	10MF	25V	ELECTRO	
	C202	QER51CM-476	47MF	16V	ELECTRO	
	C203	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C204	QER51HM-475	4.7MF	50V	ELECTRO	
	C205	QER51HM-475	4.7MF	50V	ELECTRO	
	C206	QEK51HM-226	22MF	50V	ELECTRO	
	C209	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C213	QCBB1HK-331	330PF	50V	CERAMIC	
	C242	QCBB1HK-101	100PF	50V	CERAMIC	
	C251	QCBB1HK-471	470PF	50V	CERAMIC	
	C252	QCBB1HK-471	470PF	50V	CERAMIC	
	C253	QCSB1HJ-470	47PF	50V	CERAMIC	
	C254	QCSB1HJ-470	47PF	50V	CERAMIC	
	C257	QETB1HM-475	4.7MF	50V	ELECTRO	
	C258	QETB1HM-475	4.7MF	50V	ELECTRO	
	C259	QETB1CM-476	47MF	16V	ELECTRO	
	C260	QETB1CM-476	47MF	16V	ELECTRO	
	C261	QCVB1CM-103	0.01MF	16V	CERAMIC	
	C262	QCVB1CM-103	0.01MF	16V	CERAMIC	
	C269	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C401	QCBB1HK-101	100PF	50V	CERAMIC	
	C402	QFV81HJ-105	1MF	50V	T.FILM	
	C403	QFN81HJ-182	1800PF	50V	MYLAR	
	C404	QFV81HJ-224	0.22MF	50V	T.FILM	
	C405	QETB1EM-106	10MF	25V	ELECTRO	
	C406	QCZ0205-155	1.5MF	25V	CERAMIC	
	C408	QFV81HJ-104	0.1MF	50V	T.FILM	
	C409	QCF21HP-473	0.047MF	50V	CERAMIC	
	C410	QETB1EM-106	10MF	25V	ELECTRO	
	C411	QETB1AM-107	100MF	10V	ELECTRO	
	C412	QCC21EM-473	0.047MF	25V	CERAMIC	
	C413	QCSB1HJ-470	47PF	50V	CERAMIC	
	C414	QETB1EM-106	10MF	25V	ELECTRO	
	C415	QFV81HJ-563	0.056MF	50V	T.FILM	
	C416	QFV81HJ-564	0.56MF	50V	T.FILM	
	C417	QCC21EM-473	0.047MF	25V	CERAMIC	
	C418	QCF21HP-473	0.047MF	50V	CERAMIC	
	C501	QCT26CH-151	150PF	50V	CERAMIC	
	C502	QCT26CH-121	120PF	50V	CERAMIC	
	C503	QFV81HJ-223	0.022MF	50V	T.FILM	
	C505	QCSB1HK-4R7	4.7PF	50V	CERAMIC	
	C506	QEN51HM-225	2.2MF	50V	NON POLE	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C507	QFV81HJ-563	0.056MF	50V	T.FILM	
	C508	QETB1AM-476	47MF	10V	ELECTRO	
	C509	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C510	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C511	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C512	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C513	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C551	QFV81HJ-183	0.018MF	50V	T.FILM	
	C552	QCBB1HK-271	270PF	50V	CERAMIC	
	C553	QFV81HJ-393	0.039MF	50V	T.FILM	
	C555	QETB1CM-226	22MF	16V	ELECTRO	
	C556	QFV81HJ-104	0.1MF	50V	T.FILM	
	C562	QFV81HJ-224	0.22MF	50V	T.FILM	
	C601	QFN81HJ-472	4700PF	50V	MYLAR	
	C602	QFN81HJ-472	4700PF	50V	MYLAR	
	C603	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C604	QCT30CH-3R9	3.9PF	50V	CERAMIC	
	C605	QCBB1HK-471	470PF	50V	CERAMIC	
	C606	QETB1EM-106	10MF	25V	ELECTRO	
	C607	QETB1CM-476	47MF	16V	ELECTRO	
	C608	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C609	QETB1AM-476	47MF	10V	ELECTRO	
	C610	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C611	QCBB1HK-101	100PF	50V	CERAMIC	
	C612	QFV81HJ-183	0.018MF	50V	T.FILM	
	C650	QETB1HM-105	1MF	50V	ELECTRO	
	C651	QCBB1HK-101	100PF	50V	CERAMIC	
	C652	QETB1CM-107	100MF	16V	ELECTRO	
	C653	QFV81HJ-473	0.047MF	50V	T.FILM	
	C654	QETB1EM-106	10MF	25V	ELECTRO	
	C701	QFN81HJ-562	5600PF	50V	MYLAR	
	C702	QFN81HJ-562	5600PF	50V	MYLAR	
	C703	QETB1CM-476	47MF	16V	ELECTRO	
	C704	QETB1CM-476	47MF	16V	ELECTRO	
	C705	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C706	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C707	QFV81HJ-103	0.01MF	50V	T.FILM	
	C708	QFV81HJ-103	0.01MF	50V	T.FILM	
	C709	QFN81HJ-182	1800PF	50V	MYLAR	
	C710	QFN81HJ-182	1800PF	50V	MYLAR	
	C711	QFV81HJ-683	0.068MF	50V	T.FILM	
	C712	QFV81HJ-683	0.068MF	50V	T.FILM	
	C715	QCS21HJ-121	120PF	50V	CERAMIC	
	C716	QCS21HJ-121	120PF	50V	CERAMIC	
	C717	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C718	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C719	QCS21HJ-121	120PF	50V	CERAMIC	
	C720	QCS21HJ-121	120PF	50V	CERAMIC	
	C721	QCS21HJ-221	220PF	50V	CERAMIC	
	C722	QCS21HJ-221	220PF	50V	CERAMIC	
	C741	QCVB1CM-103	0.01MF	16V	CERAMIC	
	C743	QCVB1CM-103	0.01MF	16V	CERAMIC	
	C750	QCS21HJ-680	68PF	50V	CERAMIC	
	C751	QCZ0205-155	1.5MF	25V	CERAMIC	
	C752	QCZ0205-155	1.5MF	25V	CERAMIC	
	C753	QCZ0205-155	1.5MF	25V	CERAMIC	
	C754	QCZ0205-155	1.5MF	25V	CERAMIC	
	C755	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C756	QCZ0205-155	1.5MF	25V	CERAMIC	
	C757	QCZ0205-155	1.5MF	25V	CERAMIC	
	C758	QCT30CH-120	12PF	50V	CERAMIC	
	C759	QCT30CH-3R9	3.9PF	50V	CERAMIC	
	C761	QCBB1HK-221	220PF	50V	CERAMIC	
	C771	QETB0JM-477	470MF	6.3V	ELECTRO	
	C772	QETB0JM-477	470MF	6.3V	ELECTRO	
	C773	QETB1AM-107	100MF	10V	ELECTRO	
	C774	QETB1AM-107	100MF	10V	ELECTRO	
	C780	QCS21HJ-5R0	5PF	50V	CERAMIC	
	C781	QCS21HJ-5R0	5PF	50V	CERAMIC	
	C801	QEN51HM-225	2.2MF	50V	NON POLE	
	C802	QETB1EM-106	10MF	25V	ELECTRO	
	C803	QETB1AM-107	100MF	10V	ELECTRO	
	C824	QCF21HP-223	0.022MF	50V	CERAMIC	
	C825	QCF21HP-223	0.022MF	50V	CERAMIC	
	C840	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C841	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C842	QETB1HM-105	1MF	50V	ELECTRO	
	C851	QFN81HJ-272	2700PF	50V	MYLAR	
	C852	QCBB1HK-101	100PF	50V	CERAMIC	
	C853	QEN51HM-225	2.2MF	50V	NON POLE	
	C854	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C870	QETB1HM-474	0.47MF	50V	ELECTRO	
	C871	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C872	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C873	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C874	QETB1HM-474	0.47MF	50V	ELECTRO	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
⚠	R101	PTH61G308D2R2N			FUSIBLE	
⚠	R102	PTH61G308D2R2N			FUSIBLE	
	R103	QRD167J-104	100K	1/6W	CARBON	
	R104	QRD167J-104	100K	1/6W	CARBON	
	R105	QRD167J-222	2.2K	1/6W	CARBON	
	R106	QRD167J-221	220	1/6W	CARBON	
	R107	QRD167J-562	5.6K	1/6W	CARBON	
	R108	QRD167J-152	1.5K	1/6W	CARBON	
⚠	R109	QRZ0077-100	10	1/4W	FUSIBLE	
⚠	R110	QRZ0077-100	10	1/4W	FUSIBLE	
	R111	QRD167J-121	120	1/6W	CARBON	
	R112	QRD167J-121	120	1/6W	CARBON	
	R113	QRD167J-123	12K	1/6W	CARBON	
⚠	R114	QRZ0077-560	56	1/4W	FUSIBLE	
	R115	QRD167J-121	120	1/6W	CARBON	
	R116	QRD167J-152	1.5K	1/6W	CARBON	
	R117	QRD167J-152	1.5K	1/6W	CARBON	
	R118	QRD167J-222	2.2K	1/6W	CARBON	
	R119	QRD167J-221	220	1/6W	CARBON	
	R120	QRD167J-103	10K	1/6W	CARBON	
	R121	QRD167J-103	10K	1/6W	CARBON	
	R123	QRD167J-562	5.6K	1/6W	CARBON	
	R124	QRD167J-152	1.5K	1/6W	CARBON	
	R125	QRD167J-102	1K	1/6W	CARBON	
	R126	QRD167J-821	820	1/6W	CARBON	
	R131	QRD167J-473	47K	1/6W	CARBON	
	R132	QRD167J-221	220	1/6W	CARBON	
	R133	QRD167J-221	220	1/6W	CARBON	
	R134	QRD167J-822	8.2K	1/6W	CARBON	
	R135	QRD167J-683	68K	1/6W	CARBON	
	R136	QRD167J-221	220	1/6W	CARBON	
	R201	QRD167J-821	820	1/6W	CARBON	
	R202	QRD167J-473	47K	1/6W	CARBON	
	R203	QRD167J-472	4.7K	1/6W	CARBON	
	R211	QRD167J-103	10K	1/6W	CARBON	
	R212	QRD167J-103	10K	1/6W	CARBON	
	R213	QRD167J-103	10K	1/6W	CARBON	
	R214	QRD167J-181	180	1/6W	CARBON	
	R215	QRD167J-103	10K	1/6W	CARBON	
	R221	QRD167J-473	47K	1/6W	CARBON	
	R222	QRD167J-473	47K	1/6W	CARBON	
	R223	QRD167J-473	47K	1/6W	CARBON	
	R224	QRD167J-473	47K	1/6W	CARBON	
	R241	QRD167J-221	220	1/6W	CARBON	
	R242	QRD167J-221	220	1/6W	CARBON	
	R251	QRD167J-390	39	1/6W	CARBON	
	R252	QRD167J-390	39	1/6W	CARBON	
	R253	QRD167J-680	68	1/6W	CARBON	
	R254	QRD167J-680	68	1/6W	CARBON	
	R255	QRD167J-562	5.6K	1/6W	CARBON	
	R256	QRD167J-562	5.6K	1/6W	CARBON	
	R257	QRD167J-273	27K	1/6W	CARBON	
	R258	QRD167J-273	27K	1/6W	CARBON	
	R259	QRD167J-473	47K	1/6W	CARBON	
	R260	QRD167J-473	47K	1/6W	CARBON	
	R261	QRD167J-103	10K	1/6W	CARBON	
	R262	QRD167J-103	10K	1/6W	CARBON	
	R272	QRD167J-151	150	1/6W	CARBON	
	R401	QRD167J-182	1.8K	1/6W	CARBON	
	R402	QRD167J-821	820	1/6W	CARBON	
	R403	QRD167J-682	6.8K	1/6W	CARBON	
	R404	QRD167J-101	100	1/6W	CARBON	
	R406	QRD167J-682	6.8K	1/6W	CARBON	
	R407	QRD167J-102	1K	1/6W	CARBON	
	R408	QRD167J-822	8.2K	1/6W	CARBON	
	R409	QRD167J-822	8.2K	1/6W	CARBON	
	R410	QRD167J-224	220K	1/6W	CARBON	
	R411	QRD167J-184	180K	1/6W	CARBON	
	R412	QRD167J-393	39K	1/6W	CARBON	
	R413	QRD167J-182	1.8K	1/6W	CARBON	
	R414	QRD167J-182	1.8K	1/6W	CARBON	
	R415	QRD167J-122	1.2K	1/6W	CARBON	
	R416	QRD167J-221	220	1/6W	CARBON	
	R417	QRD167J-682	6.8K	1/6W	CARBON	
	R418	QRD167J-471	470	1/6W	CARBON	
	R419	QRD167J-102	1K	1/6W	CARBON	
	R420	QRD167J-183	18K	1/6W	CARBON	
	R421	QRD167J-103	10K	1/6W	CARBON	
	R427	QVPA601-104A	100K		VARIABLE	
	R430	QRD167J-561	560	1/6W	CARBON	
	R431	QRD167J-561	560	1/6W	CARBON	
	R432	QRD167J-561	560	1/6W	CARBON	
	R433	QRD167J-561	560	1/6W	CARBON	
	R434	QRD167J-472	4.7K	1/6W	CARBON	
	R435	QRD167J-472	4.7K	1/6W	CARBON	
	R436	QRD167J-472	4.7K	1/6W	CARBON	
	R501	QRD167J-563	56K	1/6W	CARBON	
	R502	QRD167J-563	56K	1/6W	CARBON	
	R503	QRD167J-394	390K	1/6W	CARBON	
	R504	QRD167J-681	680	1/6W	CARBON	
	R505	QVPA601-202A	2K		VARIABLE	
	R506	QRD167J-561	560	1/6W	CARBON	
	R507	QRD167J-334	330K	1/6W	CARBON	
	R509	QVPA601-154A	150K		VARIABLE	
	R510	QRD167J-223	22K	1/6W	CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R511	QRD167J-682	6.8K 1/6W CARBON	
	R512	QRD167J-103	10K 1/6W CARBON	
	R513	QRD167J-562	5.6K 1/6W CARBON	
	R514	QRD167J-562	5.6K 1/6W CARBON	
	R515	QRD167J-562	5.6K 1/6W CARBON	
	R516	QRD167J-562	5.6K 1/6W CARBON	
	R517	QRD167J-183	18K 1/6W CARBON	
	R519	QRD167J-103	10K 1/6W CARBON	
	R520	QRD167J-224	220K 1/6W CARBON	
	R521	QRD167J-222	2.2K 1/6W CARBON	
	R523	QRD167J-434	430K 1/6W CARBON	
	R524	QRD167J-434	430K 1/6W CARBON	
	R525	QRD167J-103	10K 1/6W CARBON	
	R526	QRD167J-183	18K 1/6W CARBON	
	R527	QRD167J-104	100K 1/6W CARBON	
	R528	QRD167J-104	100K 1/6W CARBON	
	R529	QRD167J-681	680 1/6W CARBON	
	R530	QRD167J-183	18K 1/6W CARBON	
	R531	QRD167J-184	180K 1/6W CARBON	
	R532	QRD167J-102	1K 1/6W CARBON	
	R533	QRD167J-562	5.6K 1/6W CARBON	
	R534	QRD167J-183	18K 1/6W CARBON	
	R535	QRD167J-183	18K 1/6W CARBON	
	R537	QRD167J-470	47 1/6W CARBON	
	R538	QRD167J-562	5.6K 1/6W CARBON	
	R541	QRD167J-103	10K 1/6W CARBON	
	R551	QRD167J-104	100K 1/6W CARBON	
	R552	QRD167J-104	100K 1/6W CARBON	
	R553	QRD167J-394	390K 1/6W CARBON	
	R554	QRD167J-394	390K 1/6W CARBON	
	R557	QRD167J-681	680 1/6W CARBON	
	R558	QRD167J-473	47K 1/6W CARBON	
	R559	QRD167J-331	330 1/6W CARBON	
	R560	QRD167J-333	33K 1/6W CARBON	
	R561	QRD167J-273	27K 1/6W CARBON	
	R562	QRD167J-394	390K 1/6W CARBON	
	R563	QRD167J-182	1.8K 1/6W CARBON	
	R564	QRD167J-121	120 1/6W CARBON	
	R565	QRD167J-335	3.3M 1/6W CARBON	
	R567	QRD167J-105	1M 1/6W CARBON	
	R568	QRD167J-470	47 1/6W CARBON	
	R569	QRD167J-473	47K 1/6W CARBON	
	R570	QRD167J-272	2.7K 1/6W CARBON	
	R571	QRD167J-682	6.8K 1/6W CARBON	
	R572	QRD167J-104	100K 1/6W CARBON	
	R573	QRD167J-562	5.6K 1/6W CARBON	
	R574	QRD167J-105	1M 1/6W CARBON	
	R575	QRD167J-105	1M 1/6W CARBON	
	R576	QRD167J-104	100K 1/6W CARBON	
	R577	QRD167J-562	5.6K 1/6W CARBON	
	R579	QRD167J-104	100K 1/6W CARBON	
	R580	QRD167J-103	10K 1/6W CARBON	
	R583	QRD167J-183	18K 1/6W CARBON	
	R590	QRD167J-470	47 1/6W CARBON	
	R601	QRD167J-183	18K 1/6W CARBON	
	R602	QRD167J-432	4.3K 1/6W CARBON	
	R603	QRD167J-391	390 1/6W CARBON	
	R604	QRD167J-221	220 1/6W CARBON	
	R605	QRD167J-152	1.5K 1/6W CARBON	
	R606	QRD167J-561	560 1/6W CARBON	
	R607	QRD167J-561	560 1/6W CARBON	
	R608	QRD167J-562	5.6K 1/6W CARBON	
	R609	QRD167J-152	1.5K 1/6W CARBON	
	R610	QRD167J-271	270 1/6W CARBON	
	R611	QRD167J-222	2.2K 1/6W CARBON	
	R650	QRD167J-102	1K 1/6W CARBON	
	R651	QRD167J-103	10K 1/6W CARBON	
	R652	QRD167J-272	2.7K 1/6W CARBON	
	R656	QRD167J-391	390 1/6W CARBON	
	R657	QRD167J-103	10K 1/6W CARBON	
	R658	QRD167J-562	5.6K 1/6W CARBON	
	R659	QRD167J-472	4.7K 1/6W CARBON	
	R660	QRD167J-822	8.2K 1/6W CARBON	
	R661	QRD167J-103	10K 1/6W CARBON	
	R701	QRD167J-151	150 1/6W CARBON	
	R702	QRD167J-151	150 1/6W CARBON	
	R703	QRD167J-561	560 1/6W CARBON	
	R704	QRD167J-561	560 1/6W CARBON	
	R705	QRD167J-103	10K 1/6W CARBON	
	R706	QRD167J-103	10K 1/6W CARBON	
	R709	QRD167J-151	150 1/6W CARBON	
	R710	QRD167J-151	150 1/6W CARBON	
	R711	QRD167J-151	150 1/6W CARBON	
	R712	QRD167J-151	150 1/6W CARBON	
	R713	QRD167J-273	27K 1/6W CARBON	
	R714	QRD167J-273	27K 1/6W CARBON	
	R715	QRD167J-472	4.7K 1/6W CARBON	
	R716	QRD167J-472	4.7K 1/6W CARBON	
	R719	QRD167J-112	1.1K 1/6W CARBON	
	R720	QRD167J-112	1.1K 1/6W CARBON	
	R721	QRD167J-681	680 1/6W CARBON	
	R722	QRD167J-681	680 1/6W CARBON	
	R723	QRD167J-511	510 1/6W CARBON	
	R724	QRD167J-511	510 1/6W CARBON	
	R725	QRD167J-241	240 1/6W CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R726	QRD167J-241	240 1/6W CARBON	
	R727	QRD167J-104	100K 1/6W CARBON	
	R728	QRD167J-104	100K 1/6W CARBON	
	R729	QRD167J-392	3.9K 1/6W CARBON	
	R730	QRD167J-392	3.9K 1/6W CARBON	
	R733	QRD167J-333	33K 1/6W CARBON	
	R734	QRD167J-333	33K 1/6W CARBON	
	R735	QRD167J-333	33K 1/6W CARBON	
	R736	QRD167J-333	33K 1/6W CARBON	
	R740	QRD167J-154	150K 1/6W CARBON	
	R741	QRD167J-684	680K 1/6W CARBON	
	R742	QRD167J-154	150K 1/6W CARBON	
	R743	QRD167J-684	680K 1/6W CARBON	
	R753	QRD167J-101	100 1/6W CARBON	
	R755	QRD167J-181	180 1/6W CARBON	
	R756	QRD167J-103	10K 1/6W CARBON	
	R758	QRD167J-2R2	2.2 1/6W CARBON	
	R761	QRD167J-243	24K 1/6W CARBON	
	R762	QRD167J-243	24K 1/6W CARBON	
	R765	QRD167J-243	24K 1/6W CARBON	
	R766	QRD167J-243	24K 1/6W CARBON	
⚠	R791	QRV144F-1802	18K 1/4W M.FILM	
⚠	R792	QRV144F-1802	18K 1/4W M.FILM	
⚠	R793	QRV144F-1802	18K 1/4W M.FILM	
⚠	R794	QRV144F-1802	18K 1/4W M.FILM	
⚠	R795	QRV144F-1802	18K 1/4W M.FILM	
⚠	R796	QRV144F-1802	18K 1/4W M.FILM	
⚠	R797	QRV144F-1802	18K 1/4W M.FILM	
⚠	R798	QRV144F-1802	18K 1/4W M.FILM	
	R801	QRD167J-334	330K 1/6W CARBON	
	R802	QRD167J-564	560K 1/6W CARBON	
	R803	QRD167J-153	15K 1/6W CARBON	
	R804	QRD167J-184	180K 1/6W CARBON	
	R805	QRD167J-562	5.6K 1/6W CARBON	
	R806	QRD167J-392	3.9K 1/6W CARBON	
	R808	QRD167J-103	10K 1/6W CARBON	
	R809	QRD167J-302	3K 1/6W CARBON	
	R810	QRD167J-102	1K 1/6W CARBON	
	R811	QRD167J-394	390K 1/6W CARBON	
	R812	QRD167J-183	18K 1/6W CARBON	
	R813	QRD167J-273	27K 1/6W CARBON	
	R814	QRD167J-470	47 1/6W CARBON	
	R820	QRD167J-221	220 1/6W CARBON	
	R821	QRD167J-221	220 1/6W CARBON	
	R822	QRD167J-221	220 1/6W CARBON	
	R823	QRD167J-221	220 1/6W CARBON	
	R824	QRD167J-221	220 1/6W CARBON	
	R825	QRD167J-221	220 1/6W CARBON	
	R841	QRD167J-243	24K 1/6W CARBON	
	R842	QRD167J-183	18K 1/6W CARBON	
	R843	QRD167J-203	20K 1/6W CARBON	
	R844	QRD167J-183	18K 1/6W CARBON	
	R845	QRD167J-820	82 1/6W CARBON	
	R846	QRD167J-101	100 1/6W CARBON	
	R851	QRD167J-684	680K 1/6W CARBON	
	R852	QRD167J-684	680K 1/6W CARBON	
	R853	QRD167J-823	82K 1/6W CARBON	
	R855	QRD167J-683	68K 1/6W CARBON	
	R856	QRD167J-123	12K 1/6W CARBON	
	R857	QRD167J-152	1.5K 1/6W CARBON	
	R858	QRD167J-2R2	2.2 1/6W CARBON	
	R859	QRD167J-470	47 1/6W CARBON	
	R870	QRD167J-103	10K 1/6W CARBON	
	R871	QRD167J-153	15K 1/6W CARBON	
	R872	QRD167J-103	10K 1/6W CARBON	
	R873	QRD167J-123	12K 1/6W CARBON	
	R874	QRD167J-103	10K 1/6W CARBON	
	R875	QRD167J-393	39K 1/6W CARBON	
	R876	QRD167J-104	100K 1/6W CARBON	
	R877	QRD167J-362	3.6K 1/6W CARBON	
	R878	QRD167J-153	15K 1/6W CARBON	
	R879	QRD167J-221	220 1/6W CARBON	
	R880	QRD167J-153	15K 1/6W CARBON	
	R881	QRD167J-393	39K 1/6W CARBON	
	R882	QRD167J-123	12K 1/6W CARBON	
	R883	QRD167J-153	15K 1/6W CARBON	
	R885	QRD167J-221	220 1/6W CARBON	
	RA201	QRB059J-103	10K 1/10W R.NETWORK	

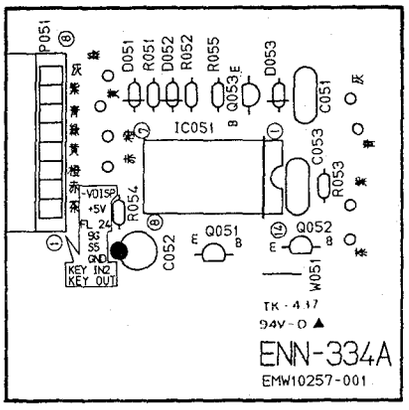
⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10219-002	CIRCUIT BOARD	
		E306805-063	SPACER	
		E33754-001	TIE BAND	
		E3400-439	SPACER	
		E70225-001	EARTH PLATE	
		E70306-001	HEAT SINK	
		E70859-001	EARTH PLATE	
		E75819-001	SUPPORT HOLDER	
		E75820-001	SUPPORT HOLDER	
		SBSE3002Z	SCREW	
	J241	QMS3501-020	MINI JACK	
	J251	QMS6302-131	HEADPHONE JACK	
	J701	EMN00TV-214A	2P PIN JACK	
	L251	EQL4004-1R0	INDUCTOR	
	P101	QMCB001-E02H	AC SOCKET	
	P201	EMV7123-030R	CONNECTOR(30PIN)	
	P251	EMV7123-030	CONNECTOR(30PIN)	
	P501	EMV5109-010A	PLUG ASSY(10PIN)	
	P502	EMV5109-004A	PLUG ASSY(4PIN)	
	X201	ECX0060-000EM	RESONATOR	
	X751	ECX0169-344EA	RESONATOR	
⚠	CP101	ICP-N5	I.C. PROTECTOR	
	FL201	ELU0001-132	FL TUBE	
	FW201	EWR34B-30SST	FLAT WIRE(4PIN)	
	FW254	EWR33E-30SST	FLAT WIRE(3PIN)	
	FW801	EWR36B-16KST	FLAT WIRE(6PIN)	
	FW803	EWR37B-16KST	FLAT WIRE(7PIN)	
	FW831	EWR37B-16KST	FLAT WIRE(7PIN)	
	FW901	EWR36B-08LST	FLAT WIRE(6PIN)	
	JT901	EMV7122-103	CONNECTOR(3PIN)	
	JT902	EMV7122-103	CONNECTOR(3PIN)	
	SW201	ESP0001-018	TACT SWITCH(POWER)	
	SW202	ESP0001-018	TACT SWITCH(SIDE A/B)	
	SW203	ESP0001-018	TACT SWITCH(DISPLAY)	
	SW204	ESP0001-018	TACT SWITCH(▶▶|+1)	
	SW205	ESP0001-018	TACT SWITCH(EJECT)	
	SW206	ESP0001-018	TACT SWITCH(MEMORY)	
	SW207	ESP0001-018	TACT SWITCH(REPEAT ALL/1)	
	SW208	ESP0001-018	TACT SWITCH(|◀◀ +10)	
	SW209	ESP0001-018	TACT SWITCH(OPEN/CLOSE)	
	SW210	ESP0001-018	TACT SWITCH(CALL)	
	SW211	ESP0001-018	TACT SWITCH(PLAY MODE)	
	SW212	ESP0001-018	TACT SWITCH(STOP/CANCEL)	
	SW213	ESP0001-018	TACT SWITCH(EDIT)	
	SW214	ESP0001-018	TACT SWITCH(INTRO)	
	SW215	ESP0001-018	TACT SWITCH(DISC)	
	SW216	ESP0001-018	TACT SWITCH(PLAY/PAUSE)	

⚠ : SAFETY PARTS

■ENN-334Ⓐ Sub PC Board Ass'y



Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q051	DTC144ES	SILICON ROHM	
	Q052	DTC144ES	SILICON ROHM	
	Q053	DTA144ES	SILICON ROHM	

⚠ : SAFETY PARTS

I.C.s

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC051	TC74HC00AP	I.C.	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D051	1SS133	SILICON ROHM	
	D052	1SS133	SILICON ROHM	
	D053	1SS133	SILICON ROHM	
	D054	1SS133	SILICON ROHM	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C051	QFV81HJ-473	0.047MF 50V T.FILM	
	C052	QET81HM-225	2.2MF 50V ELECTRO	
	C053	QFV81HJ-104	0.1MF 50V T.FILM	
	C054	QCS21HJ-470	47PF 50V CERAMIC	
	C055	QCS21HJ-470	47PF 50V CERAMIC	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R051	QRD167J-104	100K 1/6W CARBON	
	R052	QRD167J-104	100K 1/6W CARBON	
	R053	QRD167J-474	470K 1/6W CARBON	
	R055	QRD167J-104	100K 1/6W CARBON	
	R056	QRD167J-512	5.1K 1/6W CARBON	

⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10257-001(S)	CIRCUIT BOARD	
	P051	EMV5133-008K	PLUG ASSY (8PIN)	

⚠ : SAFETY PARTS

Accessories List

⚠	Part Number	Part Name	Q'ty	Description	Areas
	E30580-1840A	Instruction Book	1		EF, G
	E30580-1841B	Instruction Book	1		A
	E30580-1875A	Instruction Book	1		EN
	BT-20117	Warranty Card	1		G
	BT-20122	Audio Warranty Card	1		A
	BT-20122-1	LTD Sticker	1		A
⚠	QMP25C0-183	Power Cord	1		A
⚠	QMP39F0-183	Power Cord	1		EN, EF, G
	EWP302-013K	Signal Cord	1		
	EWP805-009K	1P Plug Cord	1		
	E26072-005	Magazine	1		
	E300196-010	Envelope	1		
	E300196-032	Envelope	1		

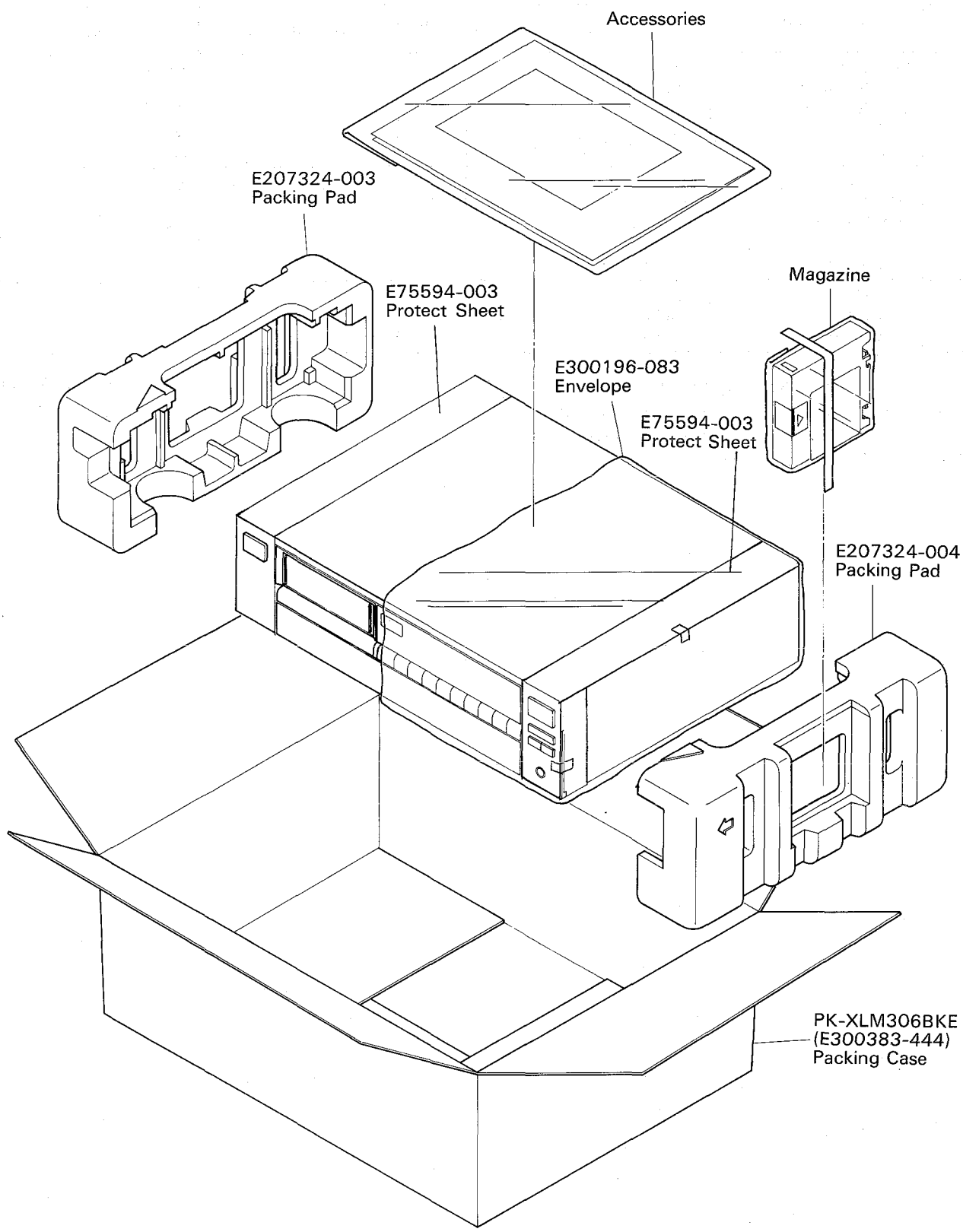
⚠ Safety Parts

The Marks for Designated Areas

A·····Australia
EN·····Scandinavia
EF·····Continental Europe
G·····Germany

No mark indicates all areas.

Packing Materials and Part Numbers



The Marks for Designated Areas	
A·····Australia	G·····Germany
EN·····Scandinavia	**No mark indicates all areas.**
EF·····Continental Europe	

— MEMO —

— MEMO —

PARTS LIST

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General Exploded View and Parts List

■ Parts List

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	E102412-015	Front Panel Ass'y	1		
	2	E72968-001	JVC Mark	1		
	3	SBSG3006M	Screw	8		
	4	SDSF2608Z	Screw	11		
	5	EWR130K-16TT	Flat Cable	1		
	6	E406564-001	Headphone Holder	1		
	7	SBSG3008Z	Screw	1		
	8	E25834-010	Metal Cover	1		
	9	E406308-001	Special Screw	4		
	10	E102384-009	Chassis Base	1		
	11	E305771-004	Stay Bracket	1	Right	
	12	SBSG3006Z	Screw	4		
	13	E306618-001	Stay Bracket	1	Center	
	14	E307882-001	Stay Bracket	1	Left	
	15	E406472-003	Foot Ass'y	4		
	16	SBST3008Z	Screw	4	for Foot	
	17	E307280-003	Fitting	1		
	18	———	CD Changer Mechanism Unit Ass'y	1	See page 3-5	
	19	E406507-001	Caution Label	1		Except J
	20	GBSG3008CC	Screw	4		
	21	E307273-001	Mecha Bracket	1		
	22	SBST3004Z	Screw	3		
⚠	23	ETP1010-46JA	Power Transformer	1		J, C
⚠		ETP1010-46LA	Power Transformer	1		U
⚠		ETP1010-50EA	Power Transformer	1		EN, EF
	24	E65389-004	Special Screw	2		
	25	E306232-001	Fastener	1		
	26	E407151-001	Spacer	1		
	27	E407155-002	Fastener	1		
	28	SBSG3014Z	Screw	1		
	29	E207132-010	Rear Panel	1		C, EN, EF
		E207132-011	Rear Panel	1		U
		E207132-013	Rear Panel	1		J
	—	E25536-073	Rating Label	1		J
		E307853-032	Rating Label	1		EN, EF
		E307853-036	Rating Label	1		C
	30	E73273-006	Special Screw	8		
	31	SBSF2608M	Screw	2		U
	—	E61029-005	Number Label	1		EN, EF, U
	—	QZL1001-001	UL Label	1		J
	—	E45858-002	CSA Label	1		C
	—	E70027-001	Approval Label	1		EN
	—	QZL1031-101	SEV Label	1		EF
	—	E70891-001	Class 1 Label	1		EN, EF, U

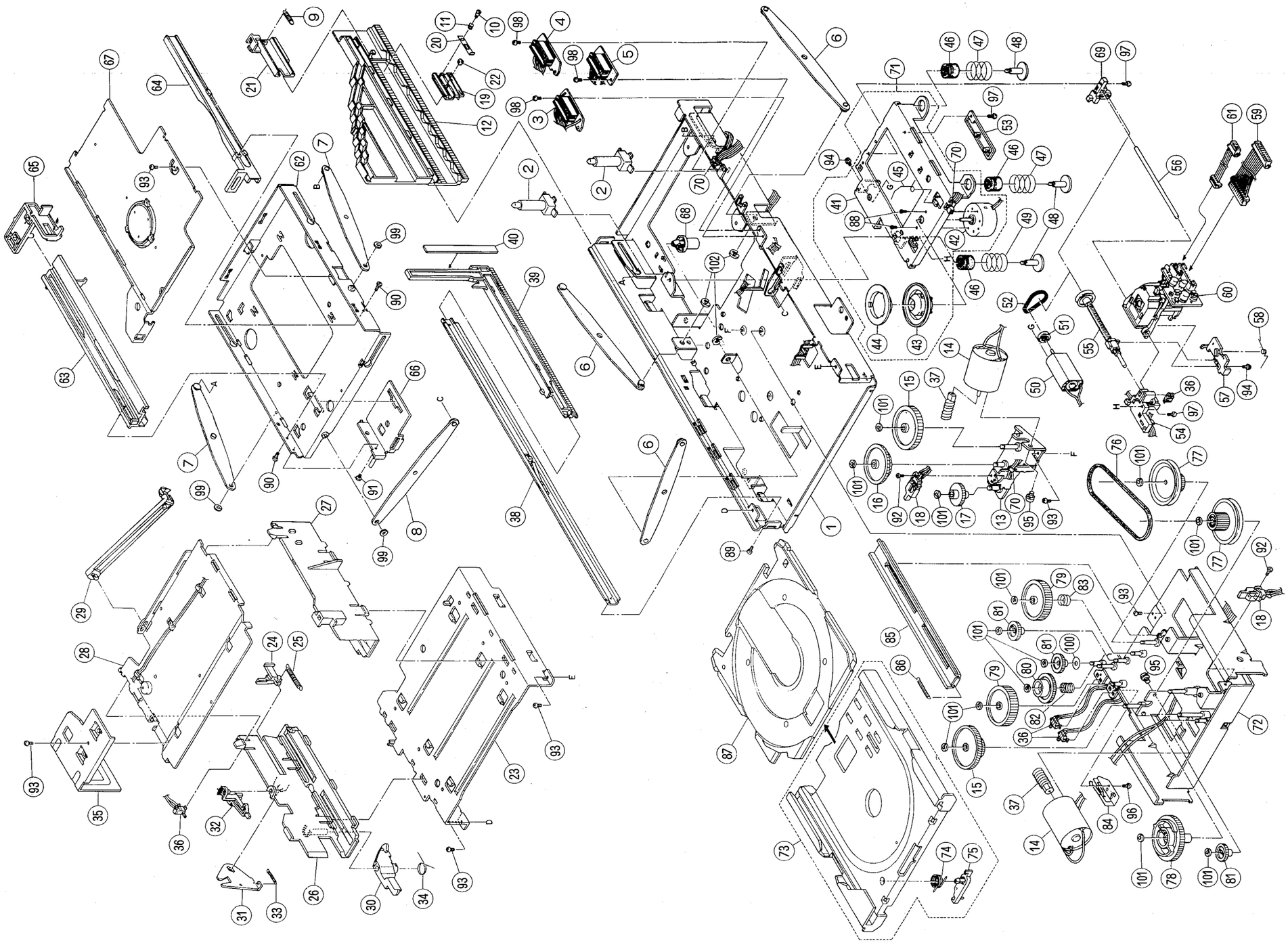
⚠ Safety Parts

The Marks for Designated Areas

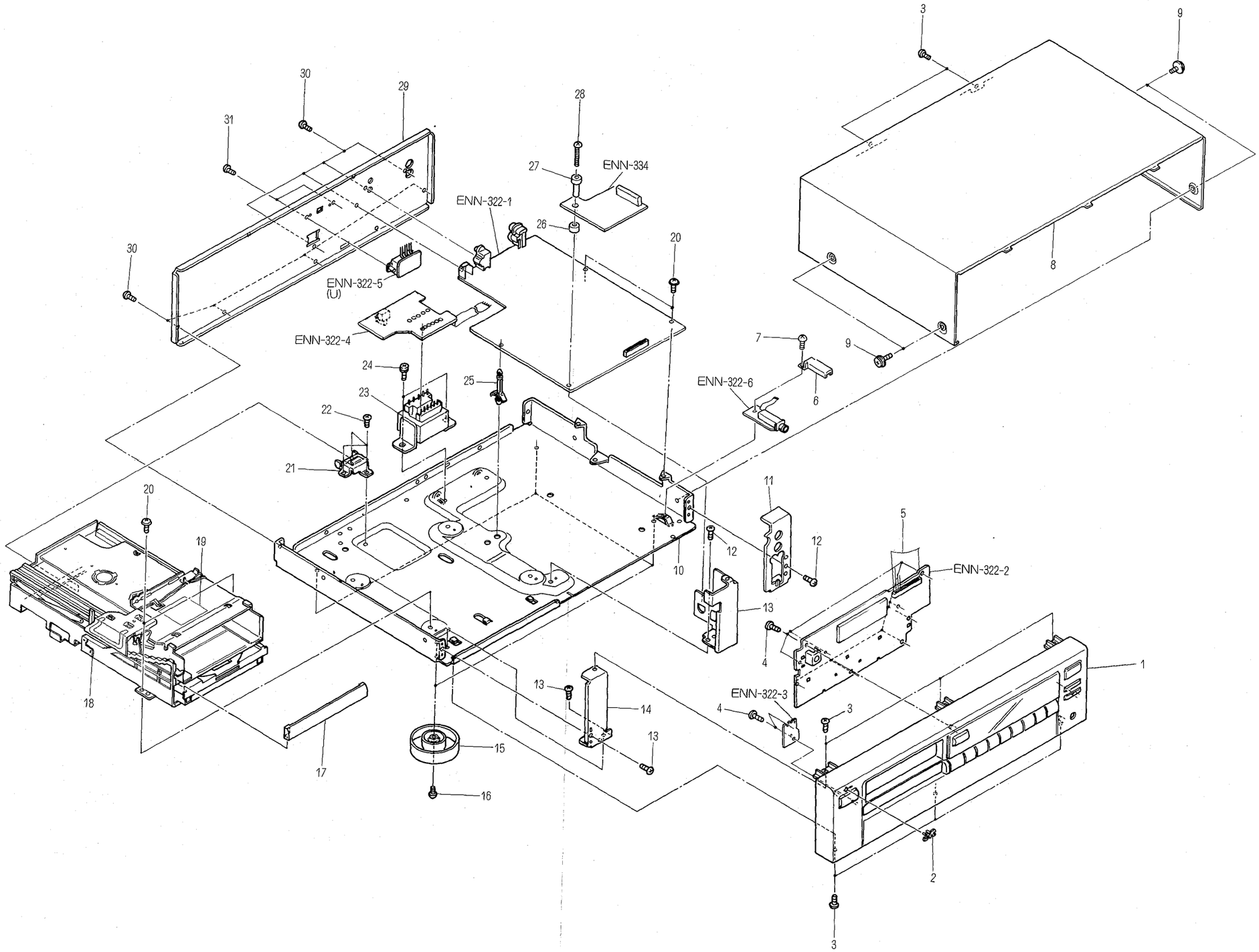
J·····the U.S.A.
C·····Canada
EN·····Scandinavia
EF·····Continental Europe
U·····Universal Type

No mark indicates all areas.

CD Changer Ass'y and Parts List



■ Exploded View



■ Parts List (CD Changer Ass'y)

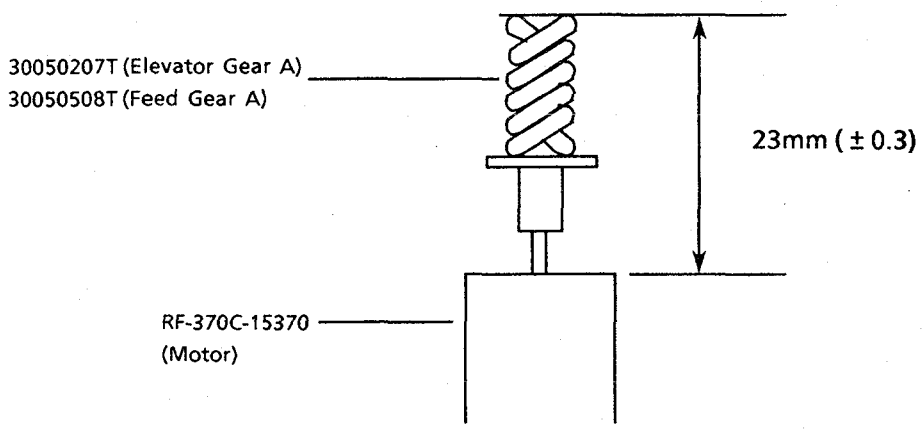
Item	Part Number	Part Name	Q'ty	Description	Areas
1	30100101T	Chassis Base	1		
2	30050115T	Guide Boss	2		
3	300501302T	Connector PC Board A Ass'y	1		
4	301001301T	Connector PC Board D Ass'y	1		
5	300501304T	Connector PC Board P Ass'y	1		
6	301002502T	Elevator Arm A Ass'y	3		
7	301002503T	Elevator Side Arm B Ass'y	2		
8	301002504T	Elevator Front Arm A Ass'y	1		
9	30100221T	Cam Lever Spring	1		
10	30100222T	Collar Screw	1		
11	30100223T	Cam Spring	1		
12	30100202T	Lift Cam	1		
13	301002501T	Elevator Motor Bracket Ass'y	1		
14	RF-370C-15370	Loading Motor	2		
15	30100210T	Elevator Gear B	2		
16	30100212T	Elevator Gear C	1		
17	30100213T	Elevator Gear D	1		
18	640101167T	Leaf Switch	1		
19	30100204T	Cam Slider	1		
20	30100205T	Cam Spring Plate	1		
21	30100206T	Cam Lever	1		
22	30100207T	Cam Roller	1		
23	30100301T	Guide Base	1		
24	30100311T	Elevator Slide Lever	1		
25	30100312T	Elevator Slide Lever Spring	1		
26	301003703T	Magazine Guide	1	Left	
27	30050303T	Magazine Guide	1	Right	
28	30100305T	Guide Cover	1		
29	30050309T	Tray Stopper	1		
30	30100310T	Open Lever	1		
31	30100308T	Elevator Kick Lever	1		
32	30100307T	Lock Lever	1		
33	30100309T	Elevator Kick Lever Spring	1		
34	30100313T	Open Lever Spring	1		
35	301003706T	Cam Stabilizer	1		
36	64020403T	Push Switch	4		
37	30050508T	Feed Gear A	2		
38	301005501T	Feed Rail Ass'y	1		
39	30100504T	Hook Slide Gear	1		
40	30100505T	Slide Gear Plate	1		
41	30050738T	Turn Table Base	1		
42	60020705T	Spindle Motor	1		
43	30050729T	Turn Table	1		
44	30050713T	Turn Table Plate	1		
45	30050742T	Controller Spring	1		
46	30050721T	Floating Rubber	3		
47	30050715T	Floating Spring (B)	2		
48	30050743T	Floating Screw	3		
49	30050740T	Floating Spring	1		
50	60021102T	Feed Motor	1		
51	30050709T	Motor Pulley	1		
52	30050714T	Feed Motor Belt	1		
53	30050737T	Pick up Support	1		
54	30050724T	Shaft Holder A	1		
55	300507303T	Feed Screw Ass'y	1		
56	30050728T	Pick up Shaft	1		
57	30050735T	Feed Nut Support	1		
58	30050739T	Feed Nut Spring	1		
59	EWS26A-B921	Wire	1	10Pin	
60	OPTIMA-5S	Pick up	1		

Item	Part Number	Part Name	Q'ty	Description	Areas
61	EWS264-B924	Wire	1	4Pin	
※62	301008503T	Rail Base Ass'y	1		
63	30100802T	Rail	1	Left	
64	30100803T	Rail	1	Right	
65	30100804T	Hook Lever	1		
66	301008502T	LP Bracket Ass'y	1		
67	301008301T	Magazine Holder Ass'y	1		
68	30050114T	Chassis Support	1		
69	30050725T	Shaft Holder B	1		
70	12030105T	Tie Band	4		
71	300507305T	Turn Table Base Ass'y	1		
※72	301004502T	Plus Base Ass'y	1		
73	301004302T	Plus Rail Base Ass'y	1		
74	30100415T	Stopper Spring	1		
75	30050416T	Stopper	1		
76	30100411T	Plus Belt	1		
77	30100403T	Plus Gear A	2		
78	30100404T	Plus Gear B	1		
79	30100515T	Feed Gear C	2		
80	30100506T	Feed Gear D	1		
81	30100516T	Feed Gear E	3		
82	30100413T	Feed Gear D Spring	1		
83	30100412T	Feed Gear E Spring	1		
84	30100414T	Switch Actuator	1		
85	30100409T	Plus Slide Rail	1		
※86	30100410T	Plus Slide Rail Spring	1		
87	E26609-003	Plus 1 Tray	1		
88	SPSK1722M	Screw	2		
89	9C0420253T	Screw	1		
90	9C0820601T	Screw	2		
91	9C1220301T	Screw	1		
92	9C0420403T	Screw	2		
93	9P0420031T	Screw	6		
94	9P0220031T	Screw	2		
95	9P0230041T	Screw	2		
96	9P1120032T	Screw	1		
97	9P0420051T	Screw	3		
98	9P0420041T	Screw	3		
※99	9W0640040T	Washer	3		
※100	9W0113080T	Washer	2		
※101	9W0250110T	Washer	14		
102	REE3000	E. Ring	3		

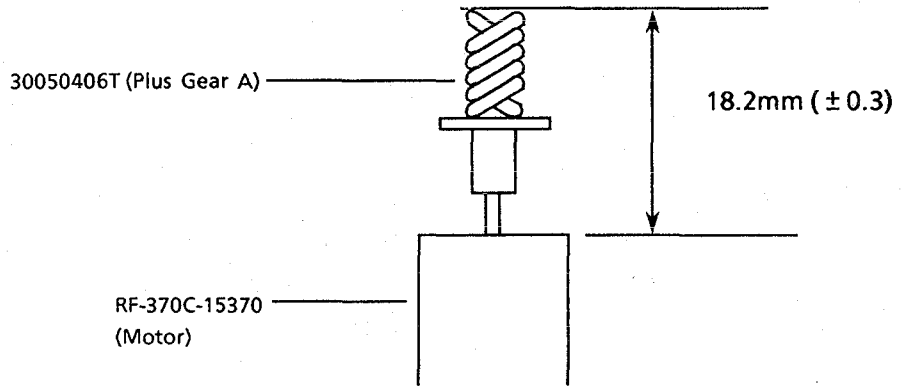
※ Replace the No.72 (Plus Base Ass'y) or No.62 (Rail Base Ass'y) at the same time when replacing the No.62 or No.72.
In this time, delete the No.86 (Plus Slide Rail Spring) and use the No.101 (Washer) instead of the No.99 (Washer).
And also add the another No.101 (Washer) and 2pcs of No.100 (Washer).
~ Perform the above information since alphabetic D of changer mechanism unit assembly.

■ How to install the gears and pulley when servicing.

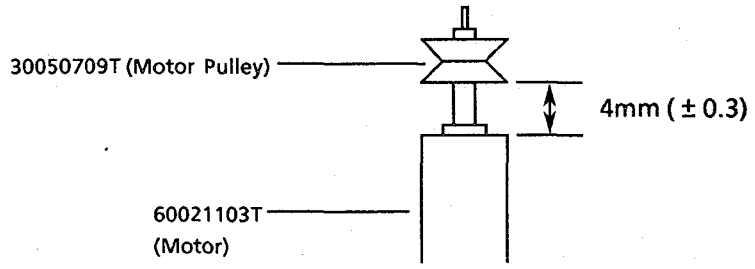
1. Elevator Motor , Loading Motor



2. Loading Motor for single tray



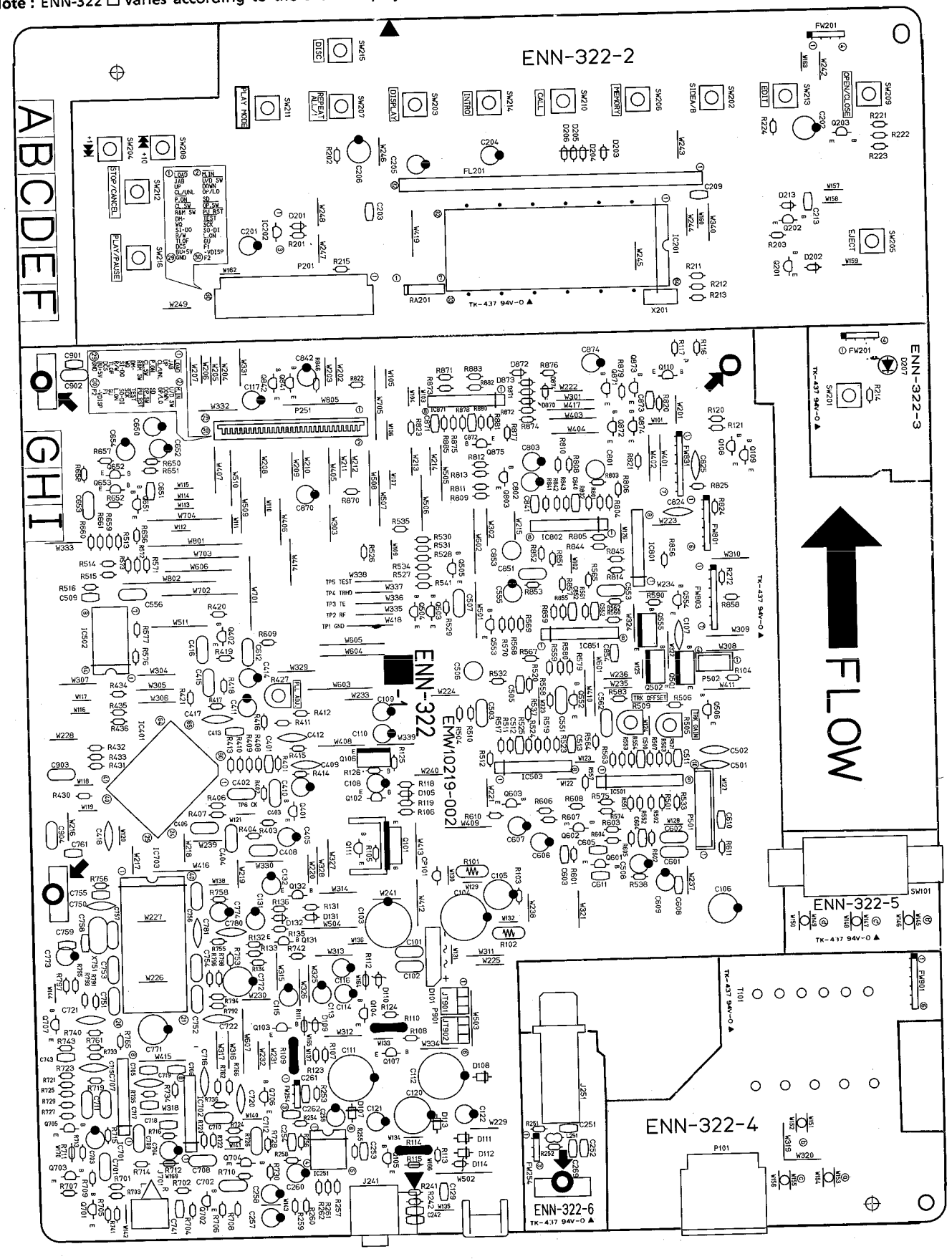
3. Feed Motor



Printed Circuit Board Ass'y and Parts List

■ENN-322☐ Front & Main PC Board Ass'y

Note : ENN-322 ☐ varies according to the areas employed. See note (1) when placing an order.



Note(1)

PC Board Ass'y	Designated Areas
ENN-322 C	Canada
ENN-322 D	the U.S.A.
ENN-322 E	Scandinavia, Continental Europe
ENN-322 F	Universal Type

Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
	Q101	2SB1187(E,F)	SILICON	ROHM	
	Q102	2SC1740S(R,S)	SILICON	ROHM	
	Q103	2SC2060(Q,R)	SILICON	ROHM	
	Q104	2SA934(Q,R)	SILICON	ROHM	
	Q105	2SA733A(P,Q)	SILICON	NEC	
	Q106	2SB1357(E,F)	SILICON	ROHM	
	Q107	DTC114YS	SILICON	ROHM	
	Q108	2SD2144S(VW)	SILICON	ROHM	
	Q109	2SD2144S(VW)	SILICON	ROHM	
	Q110	DTA114YS	SILICON	ROHM	
	Q111	DTA144ES	SILICON	ROHM	
	Q131	2SA933S(R,S)	SILICON	ROHM	
	Q132	2SD2144S(VW)	SILICON	ROHM	
	Q201	DTA114YS	SILICON	ROHM	
	Q202	DTC144ES	SILICON	ROHM	
	Q203	DTC114YS	SILICON	ROHM	
	Q401	2SD2144S(VW)	SILICON	ROHM	
	Q402	2SD2144S(VW)	SILICON	ROHM	
	Q501	2SD2037(E,F)	SILICON	ROHM	
	Q502	2SB1357(E,F)	SILICON	ROHM	
	Q503	2SD2144S(VW)	SILICON	ROHM	
	Q504	2SD2144S(VW)	SILICON	ROHM	
	Q505	2SD2144S(VW)	SILICON	ROHM	
	Q506	DTA144WS	SILICON	ROHM	
	Q552	2SD2144S(VW)	SILICON	ROHM	
	Q553	2SA933S(R,S)	SILICON	ROHM	
	Q554	2SC2060(Q,R)	SILICON	ROHM	
	Q555	2SB1357(E,F)	SILICON	ROHM	C
	Q555	2SB1357(E,F)	SILICON	ROHM	D
	Q555	2SB1357(E,F)	SILICON	ROHM	E
	Q555	2SB1187(E,F)	SILICON	ROHM	F
	Q601	2SC535(B,C)	SILICON	HITACHI	
	Q602	2SC1740S(R,S)	SILICON	ROHM	
	Q603	2SA933S(R,S)	SILICON	ROHM	
	Q651	2SA933S(R,S)	SILICON	ROHM	
	Q652	2SC1740S(R,S)	SILICON	ROHM	
	Q653	2SC1740S(R,S)	SILICON	ROHM	
	Q701	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q702	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q705	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q706	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q707	DTA144ES	SILICON	ROHM	
	Q803	2SD2144S(VW)	SILICON	ROHM	
	Q841	DTA114ES	SILICON	ROHM	
	Q842	DTC114ES	SILICON	ROHM	
	Q871	2SC2060(Q,R)	SILICON	ROHM	
	Q872	2SC2060(Q,R)	SILICON	ROHM	
	Q873	2SA934(Q,R)	SILICON	ROHM	
	Q874	2SA934(Q,R)	SILICON	ROHM	
	Q875	DTC144ES	SILICON	ROHM	

⚠ : SAFETY PARTS

I.C.s

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
	IC201	MN171602JPO	I.C.	MATSUSHITA	
	IC202	MN1281(P,Q)	I.C.	MATSUSHITA	
	IC251	M5218AP	I.C.	MITSUBISHI	
	IC401	YM7121B	I.C.	YAMAHA	
	IC501	TL072S	I.C.	DAINICHI	
	IC502	BA10339	I.C.	ROHM	
	IC503	M5218AL	I.C.	MITSUBISHI	
	IC701	M5218AL	I.C.	MITSUBISHI	
	IC702	M5218AL	I.C.	MITSUBISHI	
	IC703	JCE4501	I.C.	MATSUSHITA	
	IC801	STA341M(A)	I.C.	SANKEN	
	IC802	M5218AL	I.C.	MITSUBISHI	
	IC851	M5218AL	I.C.	MITSUBISHI	
	IC871	M5218AL	I.C.	MITSUBISHI	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
⚠	D101	S1VB20F	SILICON	SINDENGEN	
	D105	MTZ5.6JB	ZENER	ROHM	
	D107	1SR139-200	SILICON	ROHM	
	D108	1SR139-200	SILICON	ROHM	
	D109	MTZ13JC	ZENER	ROHM	
	D110	MTZ13JC	ZENER	ROHM	
	D111	1SR139-200	SILICON	ROHM	
	D112	1SR139-200	SILICON	ROHM	
	D113	1SR139-200	SILICON	ROHM	
	D114	MTZ33JC	ZENER	ROHM	
	D131	1SS133	SILICON	ROHM	
	D132	1SS133	SILICON	ROHM	
	D201	1SS133	SILICON	ROHM	
	D202	1SS133	SILICON	ROHM	
	D203	1SS119	SILICON	HITACHI	
	D204	1SS119	SILICON	HITACHI	
	D205	1SS119	SILICON	HITACHI	
	D206	1SS119	SILICON	HITACHI	
	D207	SLH-56VC50F130	L.E.D.	ROHM	
	D213	1SS133	SILICON	ROHM	
	D870	1SS133	SILICON	ROHM	
	D871	1SS133	SILICON	ROHM	
	D872	1SS133	SILICON	ROHM	
	D873	1SS133	SILICON	ROHM	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C101	QCF21HP-223	0.022MF	50V	CERAMIC	C
	C101	QCF21HP-223	0.022MF	50V	CERAMIC	D
	C101	QFV81HJ-104	0.1MF	50V	T.FILM	E
	C101	QFV81HJ-104	0.1MF	50V	T.FILM	F
	C102	QCF21HP-223	0.022MF	50V	CERAMIC	C
	C102	QCF21HP-223	0.022MF	50V	CERAMIC	D
	C102	QFV81HJ-104	0.1MF	50V	T.FILM	E
	C102	QFV81HJ-104	0.1MF	50V	T.FILM	F
	C103	QETB1CM-228	2200MF	16V	ELECTRO	
	C104	QETB1CM-228	2200MF	16V	ELECTRO	
	C105	QETB1CM-227	220MF	16V	ELECTRO	C
	C105	QETB1CM-227	220MF	16V	ELECTRO	E
	C105	QETB1CM-227	220MF	16V	ELECTRO	F
	C106	QETB1CM-227	220MF	16V	ELECTRO	C
	C106	QETB1CM-227	220MF	16V	ELECTRO	E
	C106	QETB1CM-227	220MF	16V	ELECTRO	F
	C107	QCF21HP-223	0.022MF	50V	CERAMIC	
	C108	QETB1HM-225	2.2MF	50V	ELECTRO	
	C109	QETB1AM-107	100MF	10V	ELECTRO	
	C110	QETB1AM-107	100MF	10V	ELECTRO	
	C111	QETB1VM-108	1000MF	35V	ELECTRO	
	C112	QETB1VM-108	1000MF	35V	ELECTRO	
	C113	QETB1CM-476	47MF	16V	ELECTRO	
	C114	QETB1CM-476	47MF	16V	ELECTRO	
	C115	QETB1CM-476	47MF	16V	ELECTRO	
	C116	QETB1CM-227	220MF	16V	ELECTRO	
	C117	QETB1AM-476	47MF	10V	ELECTRO	
	C120	QETB1JM-107	100MF	63V	ELECTRO	
	C121	QETB1HM-475	4.7MF	50V	ELECTRO	
	C122	QETB1HM-476	47MF	50V	ELECTRO	
	C129	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C131	QETB1CM-227	220MF	16V	ELECTRO	
	C132	QETB1CM-226	22MF	16V	ELECTRO	
	C201	QER51EM-106	10MF	25V	ELECTRO	
	C202	QER51CM-476	47MF	16V	ELECTRO	
	C203	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C204	QER51HM-475	4.7MF	50V	ELECTRO	
	C205	QER51HM-475	4.7MF	50V	ELECTRO	
	C206	QEK51HM-226	22MF	50V	ELECTRO	
	C209	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C213	QCBB1HK-331	330PF	50V	CERAMIC	
	C242	QCBB1HK-101	100PF	50V	CERAMIC	
	C251	QCBB1HK-471	470PF	50V	CERAMIC	
	C252	QCBB1HK-471	470PF	50V	CERAMIC	
	C253	QCSB1HJ-470	47PF	50V	CERAMIC	
	C254	QCSB1HJ-470	47PF	50V	CERAMIC	
	C257	QETB1HM-475	4.7MF	50V	ELECTRO	
	C258	QETB1HM-475	4.7MF	50V	ELECTRO	
	C259	QETB1CM-476	47MF	16V	ELECTRO	
	C260	QETB1CM-476	47MF	16V	ELECTRO	
	C261	QCVB1CM-103	0.01MF	16V	CERAMIC	
	C262	QCVB1CM-103	0.01MF	16V	CERAMIC	
	C269	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C401	QCBB1HK-101	100PF	50V	CERAMIC	
	C402	QFV81HJ-105	1MF	50V	T.FILM	
	C403	QFN81HJ-182	1800PF	50V	MYLAR	
	C404	QFV81HJ-224	0.22MF	50V	T.FILM	
	C405	QETB1EM-106	10MF	25V	ELECTRO	
	C406	QCZ0205-155	1.5MF	25V	CERAMIC	
	C408	QFV81HJ-104	0.1MF	50V	T.FILM	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C409	QCF21HP-473	0.047MF 50V CERAMIC	
	C410	QETB1EM-106	10MF 25V ELECTRO	
	C411	QETB1AM-107	100MF 10V ELECTRO	
	C412	QCC21EM-473	0.047MF 25V CERAMIC	
	C413	QCSB1HJ-470	47PF 50V CERAMIC	
	C414	QETB1EM-106	10MF 25V ELECTRO	
	C415	QFV81HJ-563	0.056MF 50V T.FILM	
	C416	QFV81HJ-564	0.56MF 50V T.FILM	
	C417	QCC21EM-473	0.047MF 25V CERAMIC	
	C418	QCF21HP-473	0.047MF 50V CERAMIC	
	C501	QCT26CH-151	150PF 50V CERAMIC	
	C502	QCT26CH-121	120PF 50V CERAMIC	
	C503	QFV81HJ-223	0.022MF 50V T.FILM	
	C505	QCSB1HK-4R7	4.7PF 50V CERAMIC	
	C506	QEN51HM-225	2.2MF 50V NON POLE	
	C507	QFV81HJ-563	0.056MF 50V T.FILM	
	C508	QETB1AM-476	47MF 10V ELECTRO	
	C509	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C510	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C511	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C512	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C513	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C551	QFV81HJ-183	0.018MF 50V T.FILM	
	C552	QCBB1HK-271	270PF 50V CERAMIC	
	C553	QFV81HJ-393	0.039MF 50V T.FILM	
	C555	QETB1CM-226	22MF 16V ELECTRO	
	C556	QFV81HJ-104	0.1MF 50V T.FILM	
	C562	QFV81HJ-224	0.22MF 50V T.FILM	
	C601	QFN81HJ-472	4700PF 50V MYLAR	
	C602	QFN81HJ-472	4700PF 50V MYLAR	
	C603	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C604	QCT30CH-3R9	3.9PF 50V CERAMIC	
	C605	QCBB1HK-471	470PF 50V CERAMIC	
	C606	QETB1EM-106	10MF 25V ELECTRO	
	C607	QETB1CM-476	47MF 16V ELECTRO	
	C608	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C609	QETB1AM-476	47MF 10V ELECTRO	
	C610	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C611	QCBB1HK-101	100PF 50V CERAMIC	
	C612	QFV81HJ-183	0.018MF 50V T.FILM	
	C650	QETB1HM-105	1MF 50V ELECTRO	
	C651	QCBB1HK-101	100PF 50V CERAMIC	
	C652	QETB1CM-107	100MF 16V ELECTRO	
	C653	QFV81HJ-473	0.047MF 50V T.FILM	
	C654	QETB1EM-106	10MF 25V ELECTRO	
	C701	QFN81HJ-562	5600PF 50V MYLAR	
	C702	QFN81HJ-562	5600PF 50V MYLAR	
	C703	QETB1CM-476	47MF 16V ELECTRO	
	C704	QETB1CM-476	47MF 16V ELECTRO	
	C705	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C706	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C707	QFV81HJ-103	0.01MF 50V T.FILM	
	C708	QFV81HJ-103	0.01MF 50V T.FILM	
	C709	QFN81HJ-182	1800PF 50V MYLAR	
	C710	QFN81HJ-182	1800PF 50V MYLAR	
	C711	QFV81HJ-683	0.068MF 50V T.FILM	
	C712	QFV81HJ-683	0.068MF 50V T.FILM	
	C715	QCS21HJ-121	120PF 50V CERAMIC	
	C716	QCS21HJ-121	120PF 50V CERAMIC	
	C717	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C718	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C719	QCS21HJ-121	120PF 50V CERAMIC	
	C720	QCS21HJ-121	120PF 50V CERAMIC	
	C721	QCS21HJ-221	220PF 50V CERAMIC	
	C722	QCS21HJ-221	220PF 50V CERAMIC	
	C741	QCVB1CM-103	0.01MF 16V CERAMIC	
	C743	QCVB1CM-103	0.01MF 16V CERAMIC	
	C750	QCS21HJ-680	68PF 50V CERAMIC	
	C751	QCZ0205-155	1.5MF 25V CERAMIC	
	C752	QCZ0205-155	1.5MF 25V CERAMIC	
	C753	QCZ0205-155	1.5MF 25V CERAMIC	
	C754	QCZ0205-155	1.5MF 25V CERAMIC	
	C755	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C756	QCZ0205-155	1.5MF 25V CERAMIC	
	C757	QCZ0205-155	1.5MF 25V CERAMIC	
	C758	QCT30CH-120	12PF 50V CERAMIC	
	C759	QCT30CH-3R9	3.9PF 50V CERAMIC	
	C761	QCBB1HK-221	220PF 50V CERAMIC	
	C771	QETB0JM-477	470MF 6.3V ELECTRO	
	C772	QETB0JM-477	470MF 6.3V ELECTRO	
	C773	QETB1AM-107	100MF 10V ELECTRO	
	C774	QETB1AM-107	100MF 10V ELECTRO	
	C780	QCS21HJ-5R0	5PF 50V CERAMIC	
	C781	QCS21HJ-5R0	5PF 50V CERAMIC	
	C801	QEN51HM-225	2.2MF 50V NON POLE	
	C802	QETB1EM-106	10MF 25V ELECTRO	
	C803	QETB1AM-107	100MF 10V ELECTRO	
	C824	QCF21HP-223	0.022MF 50V CERAMIC	
	C825	QCF21HP-223	0.022MF 50V CERAMIC	
	C840	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C841	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C842	QETB1HM-105	1MF 50V ELECTRO	
	C851	QFN81HJ-272	2700PF 50V MYLAR	
	C852	QCBB1HK-101	100PF 50V CERAMIC	
	C853	QEN51HM-225	2.2MF 50V NON POLE	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C854	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C870	QETB1HM-474	0.47MF 50V ELECTRO	
	C871	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C872	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C873	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C874	QETB1HM-474	0.47MF 50V ELECTRO	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
⚠	R101	PTH61G30BD2R2N	FUSIBLE	C
⚠	R101	PTH61G30BD2R2N	FUSIBLE	E
⚠	R101	PTH61G30BD2R2N	FUSIBLE	F
⚠	R102	PTH61G30BD2R2N	FUSIBLE	C
⚠	R102	PTH61G30BD2R2N	FUSIBLE	E
⚠	R102	PTH61G30BD2R2N	FUSIBLE	F
	R103	QRD167J-104	100K 1/6W CARBON	
	R104	QRD167J-104	100K 1/6W CARBON	
	R105	QRD167J-222	2.2K 1/6W CARBON	
	R106	QRD167J-221	220 1/6W CARBON	
	R107	QRD167J-562	5.6K 1/6W CARBON	
	R108	QRD167J-152	1.5K 1/6W CARBON	
⚠	R109	QRZ0077-100	10 1/4W FUSIBLE	C
⚠	R109	QRZ0077-100	10 1/4W FUSIBLE	E
⚠	R109	QRZ0077-100	10 1/4W FUSIBLE	F
⚠	R110	QRZ0077-100	10 1/4W FUSIBLE	C
⚠	R110	QRZ0077-100	10 1/4W FUSIBLE	E
⚠	R110	QRZ0077-100	10 1/4W FUSIBLE	F
	R111	QRD167J-121	120 1/6W CARBON	C
	R111	QRD167J-121	120 1/6W CARBON	E
	R111	QRD167J-121	120 1/6W CARBON	F
	R112	QRD167J-121	120 1/6W CARBON	C
	R112	QRD167J-121	120 1/6W CARBON	E
	R112	QRD167J-121	120 1/6W CARBON	F
	R113	QRD167J-123	12K 1/6W CARBON	
⚠	R114	QRZ0077-560	56 1/4W FUSIBLE	C
⚠	R114	QRZ0077-560	56 1/4W FUSIBLE	E
⚠	R114	QRZ0077-560	56 1/4W FUSIBLE	F
	R115	QRD167J-121	120 1/6W CARBON	C
	R115	QRD167J-121	120 1/6W CARBON	E
	R115	QRD167J-121	120 1/6W CARBON	F
	R116	QRD167J-152	1.5K 1/6W CARBON	C
	R116	QRD167J-152	1.5K 1/6W CARBON	D
	R116	QRD167J-152	1.5K 1/6W CARBON	E
	R116	QRD167J-102	1K 1/6W CARBON	F
	R117	QRD167J-152	1.5K 1/6W CARBON	C
	R117	QRD167J-152	1.5K 1/6W CARBON	D
	R117	QRD167J-152	1.5K 1/6W CARBON	E
	R117	QRD167J-102	1K 1/6W CARBON	F
	R118	QRD167J-222	2.2K 1/6W CARBON	
	R119	QRD167J-221	220 1/6W CARBON	
	R120	QRD167J-103	10K 1/6W CARBON	
	R121	QRD167J-103	10K 1/6W CARBON	
	R123	QRD167J-562	5.6K 1/6W CARBON	
	R124	QRD167J-152	1.5K 1/6W CARBON	
	R125	QRD167J-102	1K 1/6W CARBON	
	R126	QRD167J-821	820 1/6W CARBON	
	R131	QRD167J-473	47K 1/6W CARBON	
	R132	QRD167J-221	220 1/6W CARBON	C
	R132	QRD167J-101	100 1/6W CARBON	D
	R132	QRD167J-221	220 1/6W CARBON	E
	R132	QRD167J-221	220 1/6W CARBON	F
	R133	QRD167J-221	220 1/6W CARBON	C
	R133	QRD167J-221	220 1/6W CARBON	E
	R133	QRD167J-221	220 1/6W CARBON	F
	R134	QRD167J-822	8.2K 1/6W CARBON	
	R135	QRD167J-683	68K 1/6W CARBON	
	R136	QRD167J-221	220 1/6W CARBON	
	R201	QRD167J-821	820 1/6W CARBON	
	R202	QRD167J-473	47K 1/6W CARBON	
	R203	QRD167J-472	4.7K 1/6W CARBON	
	R211	QRD167J-103	10K 1/6W CARBON	
	R212	QRD167J-103	10K 1/6W CARBON	
	R213	QRD167J-103	10K 1/6W CARBON	
	R214	QRD167J-181	180 1/6W CARBON	
	R215	QRD167J-103	10K 1/6W CARBON	
	R221	QRD167J-473	47K 1/6W CARBON	
	R222	QRD167J-473	47K 1/6W CARBON	
	R223	QRD167J-473	47K 1/6W CARBON	
	R224	QRD167J-473	47K 1/6W CARBON	
	R241	QRD167J-221	220 1/6W CARBON	
	R242	QRD167J-221	220 1/6W CARBON	
	R251	QRD167J-390	39 1/6W CARBON	
	R252	QRD167J-390	39 1/6W CARBON	
	R253	QRD167J-680	68 1/6W CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R254	QRD167J-680	68 1/6W CARBON	
	R255	QRD167J-562	5.6K 1/6W CARBON	
	R256	QRD167J-562	5.6K 1/6W CARBON	
	R257	QRD167J-273	27K 1/6W CARBON	
	R258	QRD167J-273	27K 1/6W CARBON	
	R259	QRD167J-473	47K 1/6W CARBON	
	R260	QRD167J-473	47K 1/6W CARBON	
	R261	QRD167J-103	10K 1/6W CARBON	
	R262	QRD167J-103	10K 1/6W CARBON	
	R272	QRD167J-151	150 1/6W CARBON	
	R401	QRD167J-182	1.8K 1/6W CARBON	
	R402	QRD167J-821	820 1/6W CARBON	
	R403	QRD167J-682	6.8K 1/6W CARBON	
	R404	QRD167J-101	100 1/6W CARBON	
	R406	QRD167J-682	6.8K 1/6W CARBON	
	R407	QRD167J-102	1K 1/6W CARBON	
	R408	QRD167J-822	8.2K 1/6W CARBON	
	R409	QRD167J-822	8.2K 1/6W CARBON	
	R410	QRD167J-224	220K 1/6W CARBON	
	R411	QRD167J-184	180K 1/6W CARBON	
	R412	QRD167J-393	39K 1/6W CARBON	
	R413	QRD167J-182	1.8K 1/6W CARBON	
	R414	QRD167J-182	1.8K 1/6W CARBON	
	R415	QRD167J-122	1.2K 1/6W CARBON	
	R416	QRD167J-221	220 1/6W CARBON	
	R417	QRD167J-682	6.8K 1/6W CARBON	
	R418	QRD167J-471	470 1/6W CARBON	
	R419	QRD167J-102	1K 1/6W CARBON	
	R420	QRD167J-183	18K 1/6W CARBON	
	R421	QRD167J-103	10K 1/6W CARBON	
	R427	QVPA601-104A	100K VARIABLE	
	R430	QRD167J-561	560 1/6W CARBON	
	R431	QRD167J-561	560 1/6W CARBON	
	R432	QRD167J-561	560 1/6W CARBON	
	R433	QRD167J-561	560 1/6W CARBON	
	R434	QRD167J-472	4.7K 1/6W CARBON	
	R435	QRD167J-472	4.7K 1/6W CARBON	
	R436	QRD167J-472	4.7K 1/6W CARBON	
	R501	QRD167J-563	56K 1/6W CARBON	
	R502	QRD167J-563	56K 1/6W CARBON	
	R503	QRD167J-394	390K 1/6W CARBON	
	R504	QRD167J-681	680 1/6W CARBON	
	R505	QVPA601-202A	2K VARIABLE	
	R506	QRD167J-561	560 1/6W CARBON	
	R507	QRD167J-334	330K 1/6W CARBON	
	R509	QVPA601-154A	150K VARIABLE	
	R510	QRD167J-223	22K 1/6W CARBON	
	R511	QRD167J-682	6.8K 1/6W CARBON	
	R512	QRD167J-103	10K 1/6W CARBON	
	R513	QRD167J-562	5.6K 1/6W CARBON	
	R514	QRD167J-562	5.6K 1/6W CARBON	
	R515	QRD167J-562	5.6K 1/6W CARBON	
	R516	QRD167J-562	5.6K 1/6W CARBON	
	R517	QRD167J-183	18K 1/6W CARBON	
	R519	QRD167J-103	10K 1/6W CARBON	
	R520	QRD167J-224	220K 1/6W CARBON	
	R521	QRD167J-222	2.2K 1/6W CARBON	
	R523	QRD167J-434	430K 1/6W CARBON	
	R524	QRD167J-434	430K 1/6W CARBON	
	R525	QRD167J-103	10K 1/6W CARBON	
	R526	QRD167J-183	18K 1/6W CARBON	
	R527	QRD167J-104	100K 1/6W CARBON	
	R528	QRD167J-104	100K 1/6W CARBON	
	R529	QRD167J-681	680 1/6W CARBON	
	R530	QRD167J-183	18K 1/6W CARBON	
	R531	QRD167J-184	180K 1/6W CARBON	
	R532	QRD167J-102	1K 1/6W CARBON	
	R533	QRD167J-562	5.6K 1/6W CARBON	
	R534	QRD167J-183	18K 1/6W CARBON	
	R535	QRD167J-183	18K 1/6W CARBON	
	R537	QRD167J-470	47 1/6W CARBON	
	R538	QRD167J-562	5.6K 1/6W CARBON	
	R541	QRD167J-103	10K 1/6W CARBON	
	R551	QRD167J-104	100K 1/6W CARBON	
	R552	QRD167J-104	100K 1/6W CARBON	
	R553	QRD167J-394	390K 1/6W CARBON	
	R554	QRD167J-394	390K 1/6W CARBON	
	R557	QRD167J-681	680 1/6W CARBON	
	R558	QRD167J-473	47K 1/6W CARBON	
	R559	QRD167J-331	330 1/6W CARBON	
	R560	QRD167J-333	33K 1/6W CARBON	
	R561	QRD167J-273	27K 1/6W CARBON	
	R562	QRD167J-394	390K 1/6W CARBON	
	R563	QRD167J-182	1.8K 1/6W CARBON	
	R564	QRD167J-121	120 1/6W CARBON	
	R565	QRD167J-335	3.3M 1/6W CARBON	
	R567	QRD167J-105	1M 1/6W CARBON	
	R568	QRD167J-470	47 1/6W CARBON	
	R569	QRD167J-473	47K 1/6W CARBON	
	R570	QRD167J-272	2.7K 1/6W CARBON	
	R571	QRD167J-682	6.8K 1/6W CARBON	
	R572	QRD167J-104	100K 1/6W CARBON	
	R573	QRD167J-562	5.6K 1/6W CARBON	
	R574	QRD167J-105	1M 1/6W CARBON	
	R575	QRD167J-105	1M 1/6W CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R576	QRD167J-104	100K 1/6W CARBON	
	R577	QRD167J-562	5.6K 1/6W CARBON	
	R579	QRD167J-104	100K 1/6W CARBON	
	R580	QRD167J-103	10K 1/6W CARBON	
	R583	QRD167J-183	18K 1/6W CARBON	
	R590	QRD167J-470	47 1/6W CARBON	
	R601	QRD167J-183	18K 1/6W CARBON	
	R602	QRD167J-432	4.3K 1/6W CARBON	
	R603	QRD167J-391	390 1/6W CARBON	
	R604	QRD167J-221	220 1/6W CARBON	
	R605	QRD167J-152	1.5K 1/6W CARBON	
	R606	QRD167J-561	560 1/6W CARBON	
	R607	QRD167J-561	560 1/6W CARBON	
	R608	QRD167J-562	5.6K 1/6W CARBON	
	R609	QRD167J-152	1.5K 1/6W CARBON	
	R610	QRD167J-271	270 1/6W CARBON	
	R611	QRD167J-222	2.2K 1/6W CARBON	
	R650	QRD167J-102	1K 1/6W CARBON	
	R651	QRD167J-103	10K 1/6W CARBON	
	R652	QRD167J-272	2.7K 1/6W CARBON	
	R656	QRD167J-391	390 1/6W CARBON	
	R657	QRD167J-103	10K 1/6W CARBON	
	R658	QRD167J-562	5.6K 1/6W CARBON	
	R659	QRD167J-472	4.7K 1/6W CARBON	
	R660	QRD167J-822	8.2K 1/6W CARBON	
	R661	QRD167J-103	10K 1/6W CARBON	
	R701	QRD167J-151	150 1/6W CARBON	
	R702	QRD167J-151	150 1/6W CARBON	
	R703	QRD167J-561	560 1/6W CARBON	
	R704	QRD167J-561	560 1/6W CARBON	
	R705	QRD167J-103	10K 1/6W CARBON	
	R706	QRD167J-103	10K 1/6W CARBON	
	R709	QRD167J-151	150 1/6W CARBON	
	R710	QRD167J-151	150 1/6W CARBON	
	R711	QRD167J-151	150 1/6W CARBON	
	R712	QRD167J-151	150 1/6W CARBON	
	R713	QRD167J-273	27K 1/6W CARBON	
	R714	QRD167J-273	27K 1/6W CARBON	
	R715	QRD167J-472	4.7K 1/6W CARBON	
	R716	QRD167J-472	4.7K 1/6W CARBON	
	R719	QRD167J-112	1.1K 1/6W CARBON	
	R720	QRD167J-112	1.1K 1/6W CARBON	
	R721	QRD167J-681	680 1/6W CARBON	
	R722	QRD167J-681	680 1/6W CARBON	
	R723	QRD167J-511	510 1/6W CARBON	
	R724	QRD167J-511	510 1/6W CARBON	
	R725	QRD167J-241	240 1/6W CARBON	
	R726	QRD167J-241	240 1/6W CARBON	
	R727	QRD167J-104	100K 1/6W CARBON	
	R728	QRD167J-104	100K 1/6W CARBON	
	R729	QRD167J-392	3.9K 1/6W CARBON	
	R730	QRD167J-392	3.9K 1/6W CARBON	
	R733	QRD167J-333	33K 1/6W CARBON	
	R734	QRD167J-333	33K 1/6W CARBON	
	R735	QRD167J-333	33K 1/6W CARBON	
	R736	QRD167J-333	33K 1/6W CARBON	
	R740	QRD167J-154	150K 1/6W CARBON	
	R741	QRD167J-684	680K 1/6W CARBON	
	R742	QRD167J-154	150K 1/6W CARBON	
	R743	QRD167J-684	680K 1/6W CARBON	
	R753	QRD167J-101	100 1/6W CARBON	
	R755	QRD167J-181	180 1/6W CARBON	
	R756	QRD167J-103	10K 1/6W CARBON	
	R758	QRD167J-2R2	2.2 1/6W CARBON	
	R761	QRD167J-243	24K 1/6W CARBON	
	R762	QRD167J-243	24K 1/6W CARBON	
	R765	QRD167J-243	24K 1/6W CARBON	
	R766	QRD167J-243	24K 1/6W CARBON	
⚠	R791	QRV144F-1802	18K 1/4W M.FILM	
⚠	R792	QRV144F-1802	18K 1/4W M.FILM	
⚠	R793	QRV144F-1802	18K 1/4W M.FILM	
⚠	R794	QRV144F-1802	18K 1/4W M.FILM	
⚠	R795	QRV144F-1802	18K 1/4W M.FILM	
⚠	R796	QRV144F-1802	18K 1/4W M.FILM	
⚠	R797	QRV144F-1802	18K 1/4W M.FILM	
⚠	R798	QRV144F-1802	18K 1/4W M.FILM	
	R801	QRD167J-334	330K 1/6W CARBON	
	R802	QRD167J-564	560K 1/6W CARBON	
	R803	QRD167J-153	15K 1/6W CARBON	
	R804	QRD167J-184	180K 1/6W CARBON	
	R805	QRD167J-562	5.6K 1/6W CARBON	
	R806	QRD167J-392	3.9K 1/6W CARBON	
	R808	QRD167J-103	10K 1/6W CARBON	
	R809	QRD167J-302	3K 1/6W CARBON	
	R810	QRD167J-102	1K 1/6W CARBON	
	R811	QRD167J-394	390K 1/6W CARBON	
	R812	QRD167J-183	18K 1/6W CARBON	
	R813	QRD167J-273	27K 1/6W CARBON	
	R814	QRD167J-470	47 1/6W CARBON	
	R820	QRD167J-221	220 1/6W CARBON	
	R821	QRD167J-221	220 1/6W CARBON	
	R822	QRD167J-221	220 1/6W CARBON	
	R823	QRD167J-221	220 1/6W CARBON	
	R824	QRD167J-221	220 1/6W CARBON	
	R825	QRD167J-221	220 1/6W CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R841	QRD167J-243	24K 1/6W CARBON	
	R842	QRD167J-183	18K 1/6W CARBON	
	R843	QRD167J-203	20K 1/6W CARBON	
	R844	QRD167J-183	18K 1/6W CARBON	
	R845	QRD167J-820	82 1/6W CARBON	
	R846	QRD167J-101	100 1/6W CARBON	
	R851	QRD167J-684	680K 1/6W CARBON	
	R852	QRD167J-684	680K 1/6W CARBON	
	R853	QRD167J-823	82K 1/6W CARBON	
	R855	QRD167J-683	68K 1/6W CARBON	
	R856	QRD167J-123	12K 1/6W CARBON	
	R857	QRD167J-152	1.5K 1/6W CARBON	
	R858	QRD167J-2R2	2.2 1/6W CARBON	
	R859	QRD167J-470	47 1/6W CARBON	
	R870	QRD167J-103	10K 1/6W CARBON	
	R871	QRD167J-153	15K 1/6W CARBON	
	R872	QRD167J-103	10K 1/6W CARBON	
	R873	QRD167J-123	12K 1/6W CARBON	
	R874	QRD167J-103	10K 1/6W CARBON	
	R875	QRD167J-393	39K 1/6W CARBON	
	R876	QRD167J-104	100K 1/6W CARBON	
	R877	QRD167J-362	3.6K 1/6W CARBON	
	R878	QRD167J-153	15K 1/6W CARBON	
	R879	QRD167J-221	220 1/6W CARBON	
	R880	QRD167J-153	15K 1/6W CARBON	
	R881	QRD167J-393	39K 1/6W CARBON	
	R882	QRD167J-123	12K 1/6W CARBON	
	R883	QRD167J-153	15K 1/6W CARBON	
	R885	QRD167J-221	220 1/6W CARBON	
	RA201	QRB059J-103	10K 1/10W R.NETWORK	

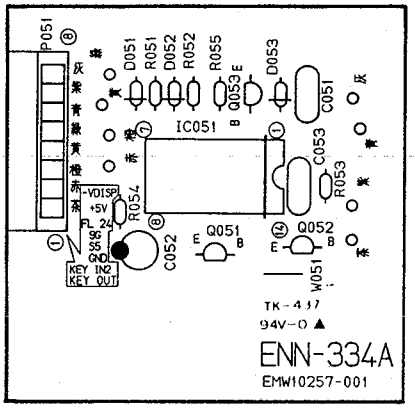
⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10219-002	CIRCUIT BOARD	
		E306805-063	SPACER	
		E3400-439	SPACER	
		E70225-001	EARTH PLATE	
		E70306-001	HEAT SINK	
		E70859-001	EARTH PLATE	
		E75819-001	SUPPORT HOLDER	
		E75820-001	SUPPORT HOLDER	
		SBSE3008Z	SCREW	
	J241	QMS3501-020	MINI JACK	
	J251	QMS6302-131	HEADPHONE JACK	
	J701	EMN00TV-214A	2P PIN JACK	
	L251	EQL4004-1R0	INDUCTOR	
	P101	QMCB001-E03H	AC INLET	C
	P101	QMCB001-E03H	AC INLET	D
	P101	QMCB001-E02H	AC SOCKET	E
	P101	QMCB001-E02H	AC SOCKET	F
	P201	EMV7123-030R	CONNECTOR(30PIN)	
	P251	EMV7123-030	CONNECTOR(30PIN)	
	P501	EMV5109-010A	PLUG ASSY(10PIN)	
	P502	EMV5109-004A	PLUG ASSY(4PIN)	
	X201	ECX0060-000EM	RESONATOR	
	X751	ECX0169-344EA	RESONATOR	
⚠	CP101	ICP-N5	I.C. PROTECTOR	C
⚠	CP101	ICP-N5	I.C. PROTECTOR	E
⚠	CP101	ICP-N5	I.C. PROTECTOR	F
	FL201	ELU0001-132	FL TUBE	
	FW201	EWR34B-30SST	FLAT WIRE(4PIN)	
	FW254	EWR33E-30SST	FLAT WIRE(3PIN)	
	FW801	EWR36B-16KST	FLAT WIRE(6PIN)	
	FW803	EWR37B-16KST	FLAT WIRE(7PIN)	
	FW831	EWR37B-16KST	FLAT WIRE(7PIN)	
	FW901	EWR36B-08LST	FLAT WIRE(6PIN)	
	JT901	EMV7122-103	CONNECTOR(3PIN)	
	JT902	EMV7122-103	CONNECTOR(3PIN)	
	SW1 1	QSS1L22-E01	SLIDE SWITCH(VOLTAGE SELECTOR)	F
	SW201	ESP0001-018	TACT SWITCH(POWER)	
	SW202	ESP0001-018	TACT SWITCH(SIDE A/B)	
	SW203	ESP0001-018	TACT SWITCH(DISPLAY)	
	SW204	ESP0001-018	TACT SWITCH(▶▶| +1)	
	SW205	ESP0001-018	TACT SWITCH(EJECT)	
	SW206	ESP0001-018	TACT SWITCH(MEMORY)	
	SW207	ESP0001-018	TACT SWITCH(REPEAT ALL/1)	
	SW208	ESP0001-018	TACT SWITCH(|◀◀ +10)	
	SW209	ESP0001-018	TACT SWITCH(OPEN/CLOSE)	
	SW210	ESP0001-018	TACT SWITCH(CALL)	
	SW211	ESP0001-018	TACT SWITCH(PLAY MODE)	
	SW212	ESP0001-018	TACT SWITCH(STOP/CANCEL)	
	SW213	ESP0001-018	TACT SWITCH(EDIT)	
	SW214	ESP0001-018	TACT SWITCH(INTRO)	
	SW215	ESP0001-018	TACT SWITCH(DISC)	
	SW216	ESP0001-018	TACT SWITCH(PLAY/PAUSE)	

⚠ : SAFETY PARTS

■ENN-334Ⓐ Sub PC Board Ass'y



Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q051	DTC144ES	SILICON ROHM	
	Q052	DTC144ES	SILICON ROHM	
	Q053	DTA144ES	SILICON ROHM	

⚠ : SAFETY PARTS

I.C.s

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC051	TC74HC00AP	I.C.	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D051	1SS133	SILICON ROHM	
	D052	1SS133	SILICON ROHM	
	D053	1SS133	SILICON ROHM	
	D054	1SS133	SILICON ROHM	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C051	QFV81HJ-473	0.047MF 50V T.FILM	
	C052	QETB1HM-225	2.2MF 50V ELECTRO	
	C053	QFV81HJ-104	0.1MF 50V T.FILM	
	C054	QCS21HJ-470	47PF 50V CERAMIC	
	C055	QCS21HJ-470	47PF 50V CERAMIC	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R051	QRD167J-104	100K 1/6W CARBON	
	R052	QRD167J-104	100K 1/6W CARBON	
	R053	QRD167J-474	470K 1/6W CARBON	
	R055	QRD167J-104	100K 1/6W CARBON	
	R056	QRD167J-512	5.1K 1/6W CARBON	

⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10257-001(S)	CIRCUIT BOARD	
	P051	EMV5133-008K	PLUG ASSY (8PIN)	

⚠ : SAFETY PARTS

Accessories List

⚠	Part Number	Part Name	Q'ty	Description	Areas
	E30580-1840A	Instruction Book	1		C,U,EF
	E30580-1841B	Instruction Book	1		J
	E30580-1875A	Instruction Book	1		EN
	BT-20047F	Warranty Card	1		J
	BT-20025K	Warranty Card	1		C
	BT-20108A	Service Information Card	1		J
	BT-20044G	Safety Instruction Sheet	1		J
	BT20071A	Service Center List	1		C
⚠	QMP1E00-183	Power Cord	1		J,C
⚠	QMP39F0-183	Power Cord	1		EN,EF
⚠	QMP7530-183	Power Cord	1		U
	EWP302-013K	Signal Cord	1		
	EWP805-009K	1P Plug Cord	1		
	E35497-022	Caution Sheet	1	220V	U
⚠	E04056	Siemems Plug	1		U
	E26072-005	Magazine	1		
	E66416-003	Envelope	1	for Warranty Card	J
	E300196-010B	Envelope	1		Except J
	E300196-010	Envelope	1		J
	E300196-032B	Envelope	1		Except J
	E300196-032	Envelope	1		J

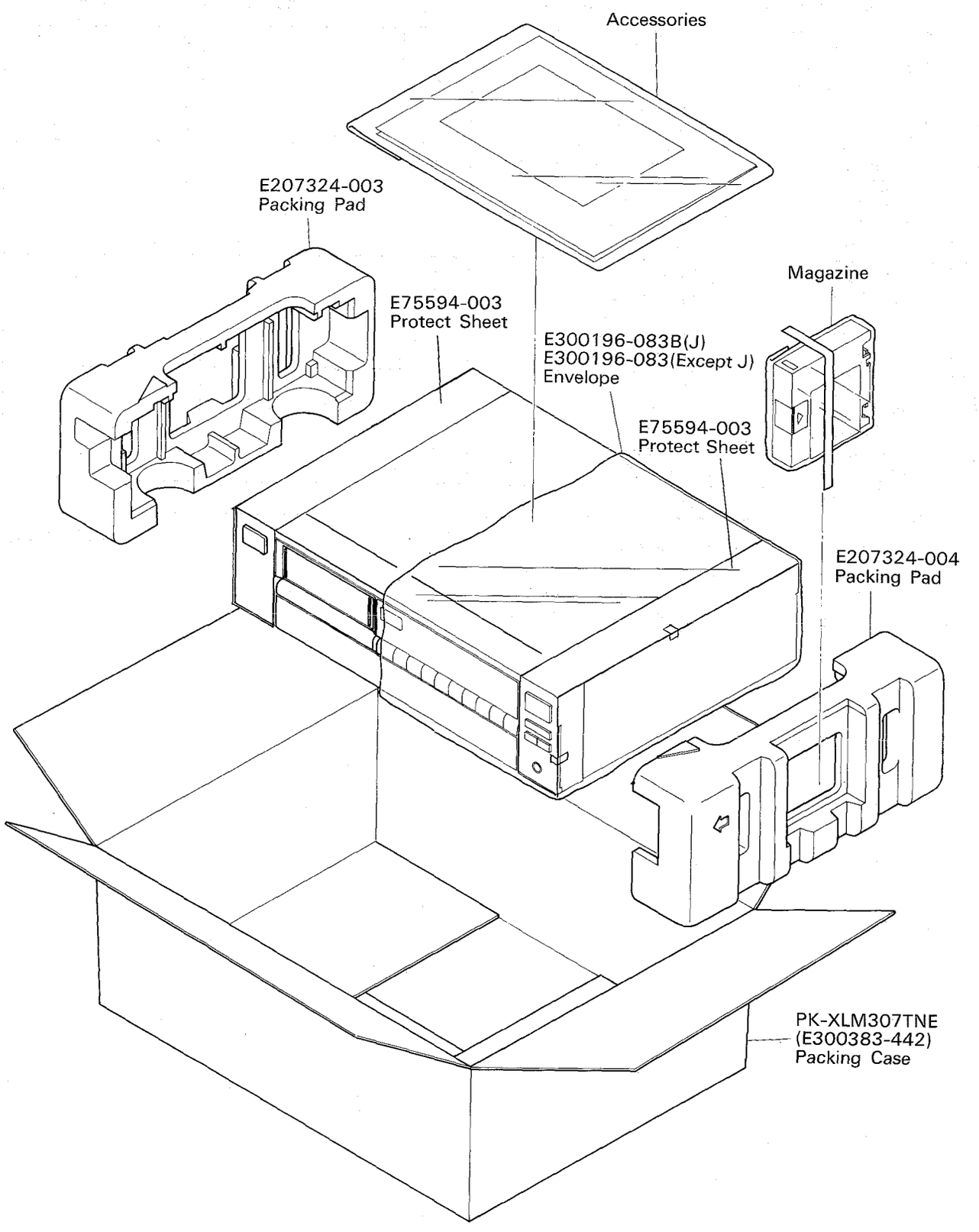
⚠ Safety Parts

The Marks for Designated Areas

J·····the U.S.A.
C·····Canada
EN·····Scandinavia
EF·····Continental Europe
U·····Universal Type

No mark indicates all areas.

Packing Materials and Part Numbers



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